SERVICE MANUAL SR8100DC

marantz®

model SR8100DC

Stereophonic Receiver

INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model SR-8100DC Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operation of the receiver.

The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can usually be obtained through local suppliers.

1. P.W. BOARDS

1. Tuner/Phono P100
2. Controller P500
3. VFL and Signal LED. P501
4. PLL and L.P.F. P502
5. Controller and F.I.P. Jumper P503
6. Controller and PLL Jumper P504
7. Main Amp P700
8. Main Amp P701
9. Power Supply P800
10. Scan Step SW. PC50
11. Tone Amp PE00
12. Tone Volume PE01
13. Connection PE02
14. Vol/Balance PG00
15. Tape Monitor SW. PJ01
16. Protector PL00
17. AC Power Relay PQ00
18. Filter/Loudness PS00
19. Speaker Terminal PS01
20. Timer Switch PS50
21. Key Board PT00
22. Power Off Switch PT50
23. Function SW. PU00
24. C/F Display PU50
25. Head Phone PW01

2. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model SR-8100DC Receiver.

Item	Manufacturer and Model No.	Use
AM Signal Generator		Signal source for AM alignment
Test Loop		Use with AM Signal Generator
FM Signal Generator MPX Signal Generator	Sound Technology Model 1000A	Signal source for FM alignment Stereo separation alignment and trouble shooting
Distortion Analyzer Audio Oscillator AC VTVM	Sound Technology Model 1700A	Distortion measurements Sinewave and squarewave signal source Voltage measurements (AC)
Oscilloscope	Tektronix Model T932 Philips Model 3232	Waveform analysis and trouble shooting and ASO alignment
Frequency Counter	Fluke Model 1900A	MPX Oscillator adjustment (VCO)
Circuit Tester		Trouble shooting
DC VTVM	Fluke Model 8000 "Digital" Simpson Model 313, Triplet Model 801	Voltage measurements (DC)
AC Wattmeter	Simpson Model 1379	Monitors primary power to amplifier
AC Ammeter	Commercial Grade (1-10A)	Monitors amplifier output under short circuit condition
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to amplifier
Variable Autotransformer	Superior Electronic Co., Powerstat Model 116B-10A	Adjusts level of primary power to amplifier
Shorting Plug	Use phono plug with 600-ohm across center pin and shell	Shorts amplifier input to eliminate noise pickup
Output Load (8 ohms, ±0.5%, 100W)	Commercial Grade	Provides 8-ohm load for amplifier output termination
Output Load (4 ohms, ±0.5%, 100W)	Commercial Grade	Provides 4-ohm load for amplifier output termination

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MODEL SR8100DC STEREOPHONIC RECEIVER

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ Company has created the ultimate in stereo sound. Only original MARANTZ parts can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ stereo are generally available within 72 hours throughout the nation via a toll-free line to our National Parts Depot in California. The sales professionals who take your call immediately refer to their own desk top computer terminal and can quickly determine the availability and price information you require. If, for some reason, your order should exceed our available stock, we usually can instantly provide an alternate replacement part or current delivery information. When the order is placed and confirmed, the computer simultaneously generates "hard copy" orders at the distribution center. As hard copies come directly from the computer to the national parts depot, your requested stock is assembled and prepared for shipment and placed on the first available carrier for delivery to you.

ORDERING PARTS

Phone orders will eliminate mail delays, and we encourage the use of this method. If you order by mail, use MARANTZ parts order froms which are available from our National Parts Depot located at the following address:

SUPERSCOPE NATIONAL PARTS DEPARTMENT
20525 Nordhoff Street
Chatsworth, California 91311
Phone: 1-800-423-5108
1-213-998-9333

The following information must be supplied to eliminate delays in processing your order:

1. Complete address.
2. Complete part numbers.
3. Complete description of parts.
4. Model number for which part is required (indicate MARANTZ).
5. Account number (for account customers only).

Direct consumers will be provided with the current retail price quotation on available parts in order to advise them of the cost of the parts and shipping.

OVERSEAS PARTS ORDERING

Parts may also be ordered from the following overseas addresses:

U.S.A.
Marantz Company, Inc.
National Service Dept.
P.O. Box 577
Chatsworth, CA 91311
U.S.A.

CANADA
Superscope Canada, Ltd.
3710 Nashua Drive
Mississauga
Ontario, Canada L4V1M5

AUSTRALIA
Marantz Australia
32 Cross Street
Brookvale, NSW 2100
Australia

JAPAN
Marantz Japan, Inc.
3622 Kamitsuruma
Sagamihara-shi
Kanagawa, Japan

EUROPE

MARANTZ AUSTRALIA PTY., LTD.
32 Cross Street
Brookvale, N.S.W. 2100
Australia

MARANTZ GERMANY GMBH
Max-Planckstrasse 22
6072 Dreieich 1
West Germany

MARANTZ AUDIO U.K., LTD.
Unit 15/16, Saxon Way
Moor Lane, Harmonsworth
UB 7 O.L.W.
Great Britain

MARANTZ SVENSKA A.B.
Franzengatan 6
10425 Stockholm
Sweden

MARANTZ EUROPE S.A.
326 Avenue Louise Bte 32
1050 Brussels
Belgium

MARANTZ BELGIUM
45 Rue Auguste Van Zande
1080 Brussels
Belgium

MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnieres
France

MARANTZ NORSKE A.S.
Refstadalleen 13
Oslo 5
Norway

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please contact the nearest facility for the necessary assistance.

3. FREQUENCY SYNTHESIZER RADIO TUNING SYSTEM

3.1 Construction of Synthesizer System

This frequency synthesizer is composed of a microcomputer (MN1455LF), PLL LSI (MN6147), lowpass filter, crystals and fluorescent indicating tubes, as shown in Fig. 1.

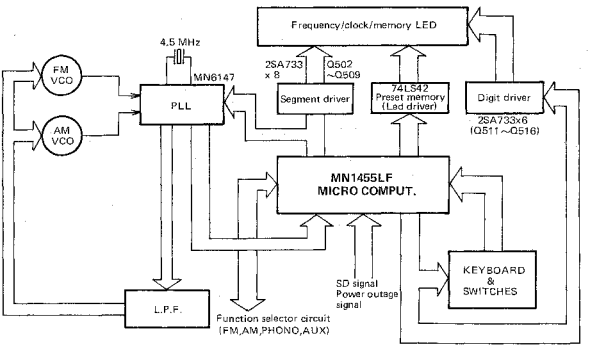


Figure 1. Block Diagram of Synthesizer

3.2 Microcomputer MN1455LF

(1) Terminal connections

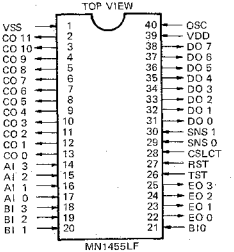


Figure 2.

(2) Specifications

Item	Symbol		Ratings	Unit
Power supply voltage	V_{DD}		−0.3 ~ +10	V
Input terminal voltage	V_I		−0.3 ~ V_{DD} +0.3	V
Output terminal voltage	V_O		−0.3 ~ V_{DD} +0.3	V
Clock input terminal voltage	V_{OSC}		−0.3 ~ V_{DD} +0.3	V
Peak envelope output current	I_{OH} (peak)	C port	−0.5	mA
		D port		
		E port		
	I_{OL} (peak)	C port	8	mA
		D port		
		E port		
Average output current	I_{OH} **(avg.)	C port	−0.25	mA
		D port		
		E port		
	I_{OL} **(avg.)	C port	4	mA
		D port		
		E port		
Power consumption	P_T*		500	mW
Ambient temperature	T opr		−20 ~ +70	°C
Storage temperature	T stg		−55 ~ +100	°C

(3) Functions of terminals

Pin Code	Pin Symbol	Function
1	V_{SS}	Ground terminal
2	CO11	LW source control output terminal, H level output
3	CO10	MW source control output terminal, H level output
4	CO9	FM source control output terminal, H level output
5	CO8	AC outlet output terminal, H level output
6	CO7	Muting output terminal, H level output
7	CO6	Data latch clock output terminal for MN6147
8	CO5	Frequency display digit output and switch and key matrix scan port. The scan is low level. CO5 . . . G1, CO4 . . . G2, CO3 . . . G3, CO2 . . . G4, CO1 . . . G5, CO0 . . . GS1, GS2
9	CO4	
10	CO3	
11	CO2	
12	CO1	
13	CO0	
14	Ai3	Switch and key matrix input terminal. The input signal is always supplied from the micro computer standard routine.
15	Ai2	
16	Ai1	
17	Ai0	
20	Bi1	
21	Bi0	
18	Bi3	Station detector signal (tuning detector signal) input terminal. Checks the input only in the auto up/down station seek. Station detector signal — H level input Non station detector signal — L level input. In the normal condition, the muting is released regardless of the station detector signal.
19	Bi2	Power outage (battery back-up) detection terminal. In the battery back-up mode, the output of the micro computer becomes low and only the clock is counted. When the power is recovered, the unit is set to OFF mode (OFF key on condition) and display indicates the current time. Battery back-up mode — L level input Normal power supply — H level input

Pin Code	Pin Symbol	Function
22	EO0	Data output terminal for BCD driver SN74LS42 Preset memory display LED (M1 – M8) and PHONO, AUX1 and AUX 2 source LED control terminal
23	EO1	
24	EO2	
25	EO3	
26	$\overline{TST}$	Test terminal. Connected to ground
27	$\overline{RST}$	Reset terminal. When power is supplied to the micro computer, the level is L. In the normal condition, the level is H.
28	$\overline{CSLCT}$	To use the SNS1 for counter mode, connect to ground. (For the models without clock, connect to ground.)
29	SNSO	Lock detection input terminal for PLL system. The MN6147 ALDO signal is applied to this terminal via the filter. This terminal is used for auto up/down station seek. Lock mode — H level input Unlock mode — L level input
30	SNS1	Reference clock (250 Hz) input terminal. Input from MN6147 CK2. For the models without clock, connect to ground.
31	DO0	MN6147 data output and display segment output terminal. The segment scan is low.
32	DO1	
33	DO2	
34	DO3	
35	DO4	
36	DO5	
37	DO6	
38	DO7	
39	V_{DD}	Power supply terminal (+5V ± 10%)
40	OSC	Micro computer clock (526.5 kHz) input terminal. Input from MN6147 CK1.

3.3 PLL LSI MN6147

(1) Terminal connections

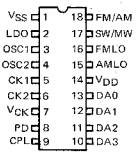


Figure 3.

(2) Specifications

Absolute maximum ratings (Ta = 25°C)

Item	Symbol	Condition	Ratings	Unit
Power supply voltage	V_{DD}	V_{SS} = 0V	−0.3 ~ +10	V
Input voltage	V_I		−0.3 ~ V_{DD}+0.3	V
Output voltage	V_O		−0.3 ~ V_{DD}+0.3	V
Allowable loss	P_D		250	mW
Operating temperature	Topr		−30 ~ +70	°C
Storage temperature	Tstg		−55 ~ +100	°C

(3) Block diagram

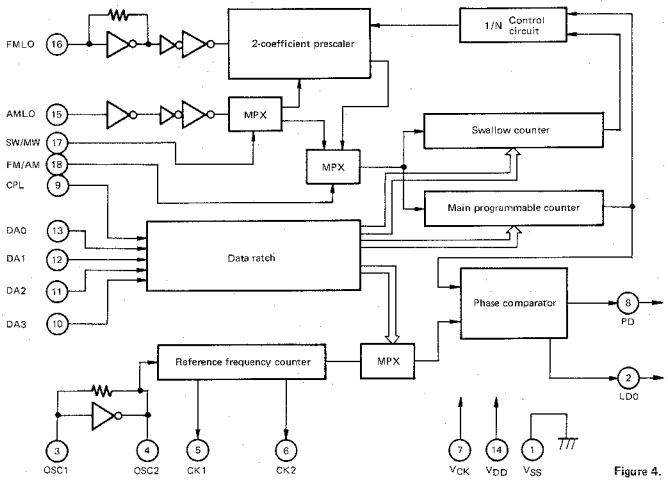
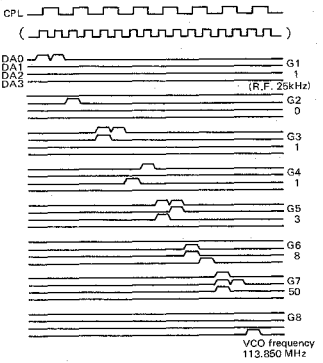


Figure 4.

(4) Functions of terminals

No.	Symbol	Description	No.	Symbol	Description
1	V_{SS}	Ground	8	CPL	Latch clock
2	LDO	Oscillator output	9	DA3~DA0	Data address input
3	OSC1 ~ 2	Crystal oscillator (4.5 MHz)	10	V_{DD}	Main power supply
4	CK1	Clock output (562.5 kHz)	11	AMLO	AM local oscillator input
5	CK2	Clock output (250 Hz)	12	FMLO	FM local oscillator
6	V_{CK}	Clock circuit back-up	13	SW/MW	SW/MW selector
7	PD	Phase comparator output	14	FM/AM	FM/AM selector

(5) Data input timing chart



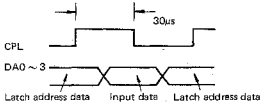


Figure 5.

(6) Relationship between data input terminal and programmable counter

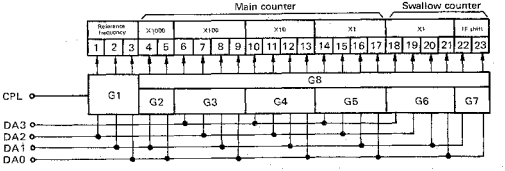


Figure 6.

(7) Latch group code list

Latch / Input code	G1	G2	G3	G4	G5	G6	G7	G8
DA3	L	L	L	L	L	L	L	H
DA2	L	L	L	H	H	H	H	x
DA1	L	H	H	L	L	H	H	x
DA0	H	L	H	L	H	L	H	x

(8) Reference frequency (f_1) code list

kHz / Input code	2.5	25	9	10	5	1
DA2	L	L	L	L	H	H
DA1	L	L	H	H	L	H
DA0	L	H	L	H	x	x

(9) IF shift list

kHz / Input code	0	25	50	75
DA1	L	L	H	H
DA0	L	H	L	H

(10) FM, SW, MW (LW) signal process list

Input signal		Terminal code	
Signal name	Terminal	FM/AM(18)	SW/MW(17)
FM	(16)	H	X
SW	(15)	L	H
MW (LW)	(15)	*L	L

3.4 PLL Synthesizer Tuning System: Theory of Operation

As shown in the Figure, the output frequency of the FM/AM local oscillator is automatically locked to a constant frequency by the PLL network which is operating under microprocessor control.

In the FM mode, part of the local oscillator output is coupled to the FM input terminal of the PLL block via a buffer amplifier (for example, when the received frequency is 98.1 MHz, the local oscillation frequency is 98.1 + 10.7 = 108.8 MHz).

Meanwhile, the microprocessor accepts frequency data input from the keyboard and provides the data of, say, 98.1 MHz to the display. It also provides frequency dividing-ratio data to the PLL block. Since the reference frequency for the FM mode is 25 kHz, dividing ratio N is determined as follows:

$$N = 108.8\ \text{MHz} \div 0.025 = 4352$$

When the 50 kHz stepping interval is selected in the FM mode, the FM frequency band is between 87.5 and 108.0 MHz, and hence the local frequency band is between 98.2 and 118.7 MHz. As a result, the dividing ratio is between 3928 and 4748.

Once dividing ration is determined, the local oscillation frequency is divided by N, and the resultant signal phase is compared with the reference signal phase. The reference signal is created by dividing the master oscillator output of 4.5 MHz, and its frequency accuracy depends on that of the quartz crystal element used in the master oscillator.

The frequency divided in the PLL block (108.8 MHz ÷ 435 = 25 kHz) is phase-compared with the reference frequency of 25 kHz, and the phase difference between the two signals is converted by the PLL into a corresponding pulse array. This pulse array is coupled to a low-pass filter, where it is converted into a corresponding DC level, which is then feed back to the local oscillator's control input to control the local oscillator output frequency to a constant.

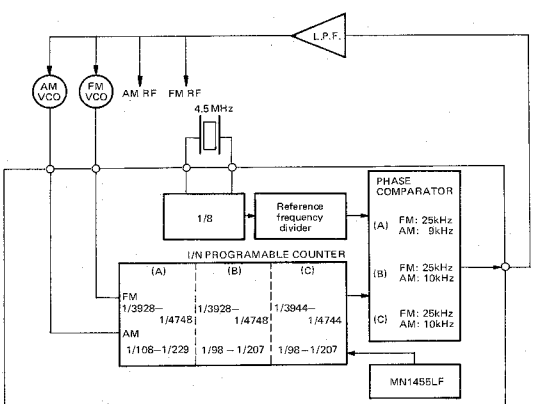
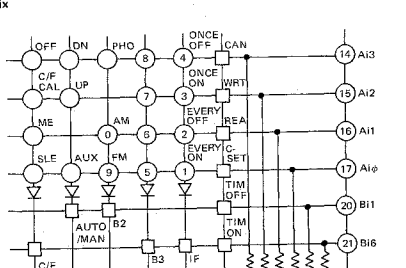


Figure 7.

	Scan Step		Receiving frequency	Local oscillator frequency	Number of channels
(A)	FM	50 kHz	87.50 ~ 108.0 MHz	98.2 ~ 118.7 MHz	411
	AM	9 kHz	522 ~ 1611 kHz	972 ~ 2061 kHz	122
(B)	FM	50 kHz	87.50 ~ 108.0 MHz	98.2 ~ 118.7 MHz	411
	AM	10 kHz	530 ~ 1620 kHz	980 ~ 2070 kHz	109
(C)	FM	200 kHz	87.9 ~ 107.9 MHz	98.6 ~ 118.6 MHz	101
	AM	10 kHz	530 ~ 1620 kHz	980 ~ 2070 kHz	109

3.5 Description of Switches

Switch and Key Matrix



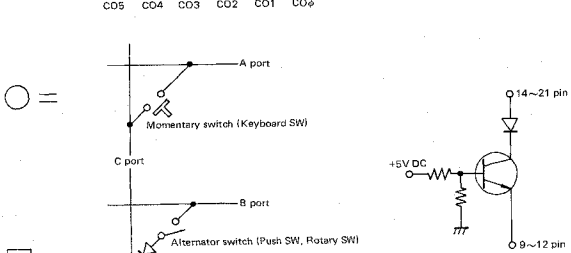


Figure 8.

Switches 0–9: these switches are used for read/write operations for memories CH.1-8, timer set-up, and read/write operations for EVERY ON/OFF and ONCE ON/OFF data.

UP/DN switches: when the Auto/Manual switch is set at Auto, pressing these switches scans frequencies up or down until a search signal is input.
When the switch is set at Manual, each depression of these switches steps up or down the frequency by one step. When the switches are held down continuously for more than 1 second, continuous frequency scanning starts.

FM/AM/PHONO/AUX: select input program sources. The FM and AM selector switches are shared by the 9 and 0 numerical keys.

C/F CALL: recalls time and frequency data for 5 seconds.

C/F DISPLAY: switches between time and frequency display.

SLE: used to set up the sleep timer function. This switch function is independent of the timer function.

AUTO/MANUAL: switches between the muting and scanning functions in the FM mode.

B2/B3: select scan stepping intervals with the following combinations:

AM (kHz)	FM (kHz)	B2	B3
9	50	OFF	OFF
10	50	OFF	ON
10	200	ON	ON

IF: controls the intermediate frequency in the FM mode over +25 kHz.

CANCEL: WRT, REA, C, SET, MANUAL.

TIMER: selects timer modes.

Indicator

The indicator employs fluorescent tubes for dynamic lighting.

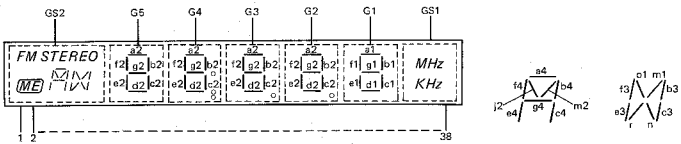


Figure 9.

Pin No.	Connection	Pin No.	Connection	Pin No.	Connection	Pin No.	Connection
1	F	11	b_4	21	G_3	31	a_2
2	FM STEREO	12	a_4	22	e_2	32	g_1
3	ME	13	G_5	23	Dp_3	33	b_1, e_1
4	GS_2	14	j_1, m_1	24	Dp_2	34	GS_1
5	j_2, m_2	15	n, r	25	d_2	35	a_1, f_1, c_1, d_1
6	g_4	16	b_3, c_3, e_3, f_3	26	G_2	36	kHz
7	e_4	17	G_4	27	Dp_1	37	MHz
8	d_4	18	g_2	28	C_2	38	F
9	c_4	19	f_2	29	b_2		
10	GS_2	20	Col	30	G_1		

Details of display

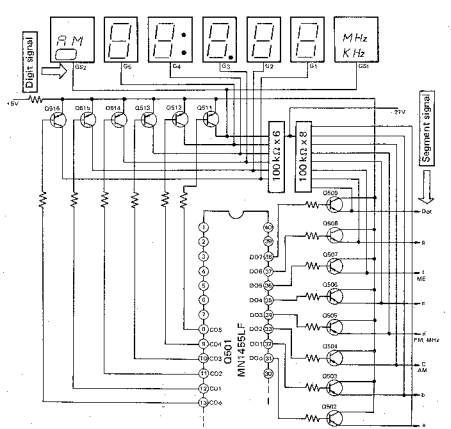


Figure 10.

Dynamic lighting timing chart

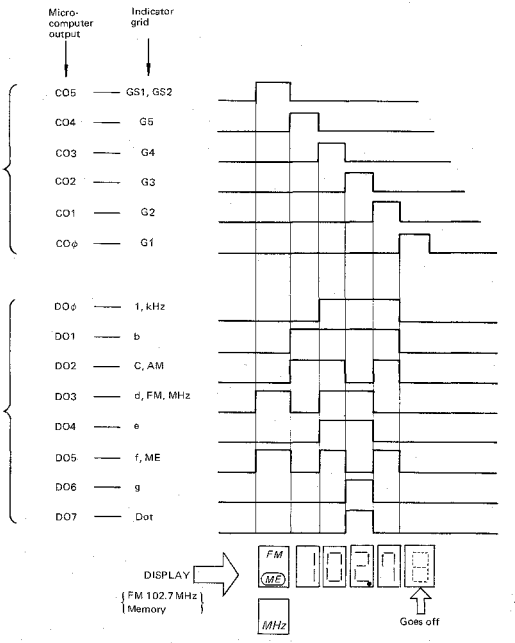


Figure 11.

4. ALIGNMENT PROCEDURES

AUDIO ALIGNMENT (FUNCTION switch in AUX position and VOLUME control in the minimum position at NO load)

4.1 DC of set (Adjust with a digital volt meter.)

Test point —— SPK out (L & R)
Adjusting point —— R705 (L), R706 (R)
Specified values —— 0 mV

4.2 Idling current (Adjust with a digital volt meter.)

Test point —— J705 ~ J706 (L), J707 ~ J708 (R)
Adjusting point —— R717 (L), R718 (R)
Specified value —— 13.2 mV (20 mA)

A dummy resistor of 47 kohms must be connected across the tuner output terminals before alignment.

4.3 FM Alignment Procedures (Selector switch in the "FM" position and mode/tuning switch in the "Mono/Manual" position)

FM Local Oscillator Alignment (Scan step selector switch (SC51) in the "50 kHz" position)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1			DC Volt meter in 30V and 3V range to point (A) (J116)	108.00 MHz	C142 for 20.0V
2				87.50 MHz	L104 for 3.0V
3	Repeat steps 1 and 2.				

FM RF Alignment

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	RF generator to FM antenna terminals (B) through matching network (300 ohms balanced) (Maintain RF level below limit)	106.10 MHz	VTVM to L or R channel output (JJ01 or JJ02)	106.10 MHz	C101, C105, C107 for maximum output and minimum distortion
2		90.10 MHz		90.10 MHz	L101, L102, L103 for maximum output and minimum distortion
3	Repeat steps 1 and 2.				
4	RF generator to FM antenna terminals (B) through matching network (300 ohms balanced) (Maintain RF level below limit)	98.10 MHz	VTVM to L or R channel output (JJ01 or JJ02)	98.10 MHz	L106 for maximum output and minimum distortion
5		98.10 MHz	"O" Center Meter or DC current meter in 100 μA range to point (C) (J109 and J110)		L108 Core so that the meter indicater its center or may read "O"
6	RF generator 1 mV output to FM antenna terminals B through maching network (300 ohms, balanced)	98.10 MHz	Distortions meter to L or R Channel output (JJ01 or JJ02)	98.10 MHz	L108 core for minimum distortion
7	RF generator 300 μV				R136 so that signal Strength Led may light 5 points

Muting Circuit Alignment (FM Stopping Level of Scanning, FM Stereo indicator threshold Level)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	RF generator 12.5 μV output to FM antenna terminal (B) network (300 ohms balanced)	98.10 MHz	VTVM to R or L channel output (JJ01 or JJ02)	98.10 MHz	R131 for 12.5 μV threshold Level (Setting to Auto position of mode switch & Low Level position of threshold Level switch)

Multiplex Alignment Procedures (Function switch in the "FM" position, Auto/Manual switch in the Auto position)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	RF generator to FM antenna terminals (B) through matching network (300 ohms, balanced), with 1 mV FM stereo simulator RF level and Pilot 9% modulation	No. modulation & pilot off	Frequency counter to point (D) (J111)	98.10 MHz	R304 so that Frequency counter may precisely read 76 kHz
2		Pilot only	VTVM to right and left channel output (JJ01 or JJ02)		R307 so that minimum output should be the same in both channels
3	RF generator to FM antenna terminals (B) through matching network (300 ohms balanced) with 1 mV FM stereo simulator RF level and 100% modulation (pilot 9%)	Stereo, left (1,000 Hz)	VTVM to right channel (JJ01 or JJ02)	98.10 MHz	R322 for minimum output and same separation in both channels
4		Stereo right (1,000 Hz)	VTVM to left channel output terminal (JJ01 or JJ02)		
5	Repeat step 3 and 4.				

4.4 AM ALIGNMENT Procedures (Function Switch in the "AM" position)

AM Local Oscillator Alignment (Scan Step Selector switch (SC51) in the "10 kHz" position)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	–	–	DC Volt meter in 30V and 3V range to point (A) (J116)	1620 kHz	CA16 for 22V
2				530 kHz	LA02 for 2.0V
3	Repeat step 1 and 2.				

AM IF Alignment

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	Sweep generator to point (E) (JA07)	450 kHz marker	Oscilloscope to point (F) (JA03)	Quiet point on band	LA03 for maximum and symmetric response

AM RF Alignment

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	Apply the signal to the AM loop antenna from the RF generator, using the test loop. As par the Figure 12 (with 3 mV/m)	1400 kHz	VTVM to L or R Channel output (JJ01 or JJ02)	1400 kHz	CA02 for maximum output
2		600 kHz		600 kHz	LA01 for maximum output
3	Repeat step 1 and 2 as necessary to obtain maximum sensitivity.				
4		1000 kHz		1000 kHz	RA11 so that signal strength LED may light 5 point

PLL Oseillator Alignment (Function Switch in the "AM" position)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	No signal	–	Frequency counter to point (G) (J117)	1400 kHz	C515 so that frequency may precisely read 1850,000 kHz

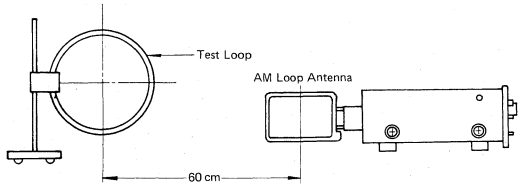
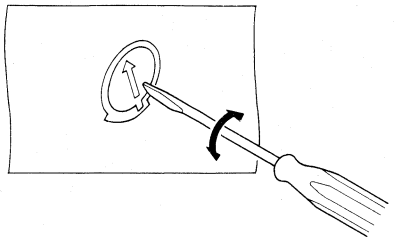


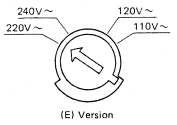
Figure 12.

5. VOLTAGE CONVERSION

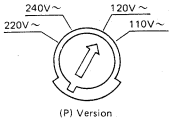
To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE. DO NOT DISASSEMBLE THE VOLTAGE SELECTOR ABSOLUTELY.





(E) Version



(P) Version

Figure 13. Voltage Conversion

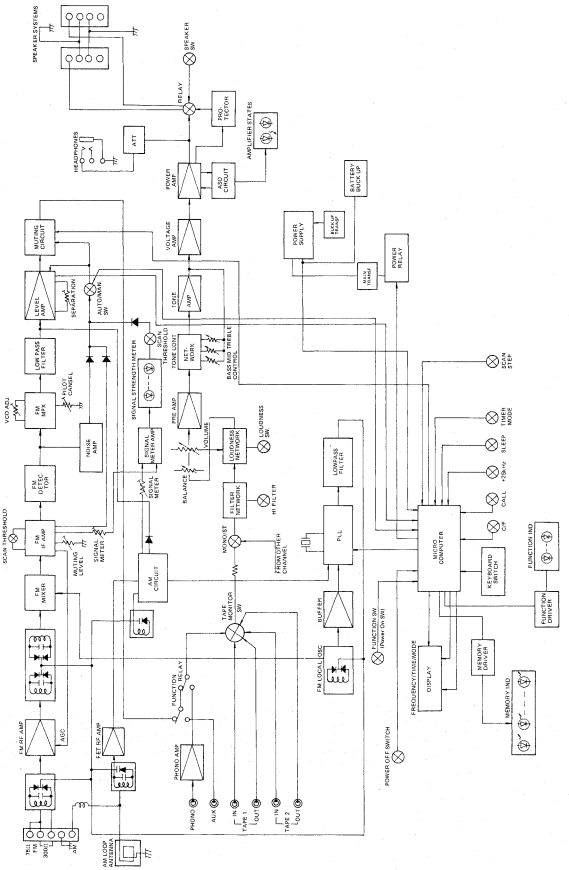
NOTE ON SAFETY: THE PARTS MARKED WITH ⚠ ARE IMPORTANT PARTS ON THE SAFETY. PLEASE USE THE PARTS HAVING THE DESIGNATED PARTS NUMBERS WITHOUT FAIL.

FTZ REGULATION
Instruction for the use in the range other than specified in FTZ codes.

Achtung für die Leute, die in dem Gebiet wohnen, wo die FTZ-Bestimmungen vorherrschend sind.

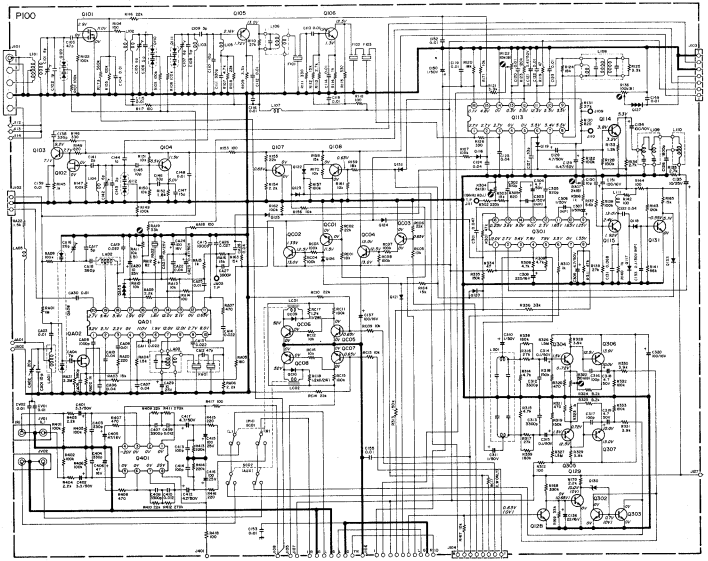
Sollte das Gerät auch für Frequenzen auszerhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangebereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatorspule (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.

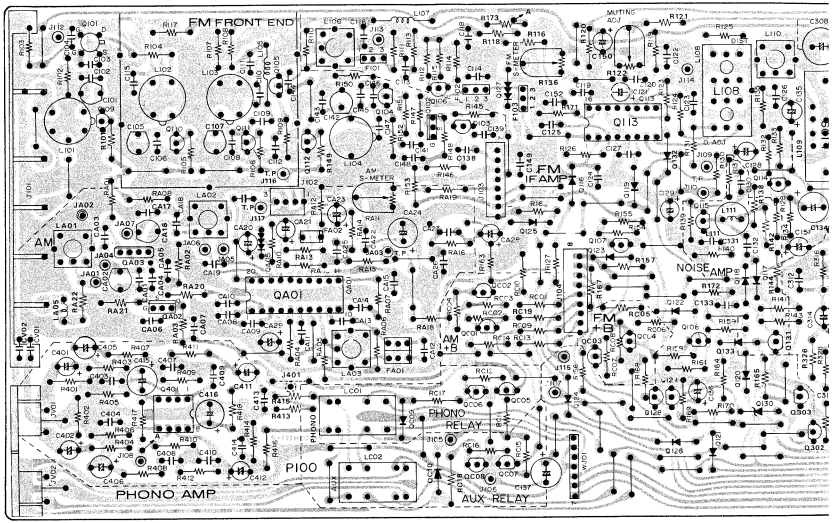
6. BLOCK DIAGRAM



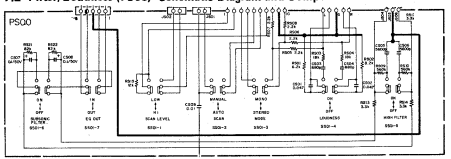
7. DIAGRAM AND COMPONENT LOCATIONS

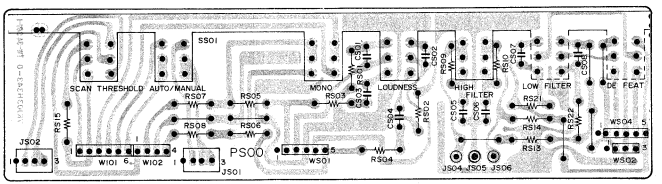
7.1 Tuner/Phono Amp. (P100) Schematic Diagram and Component Locations



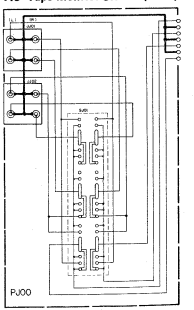


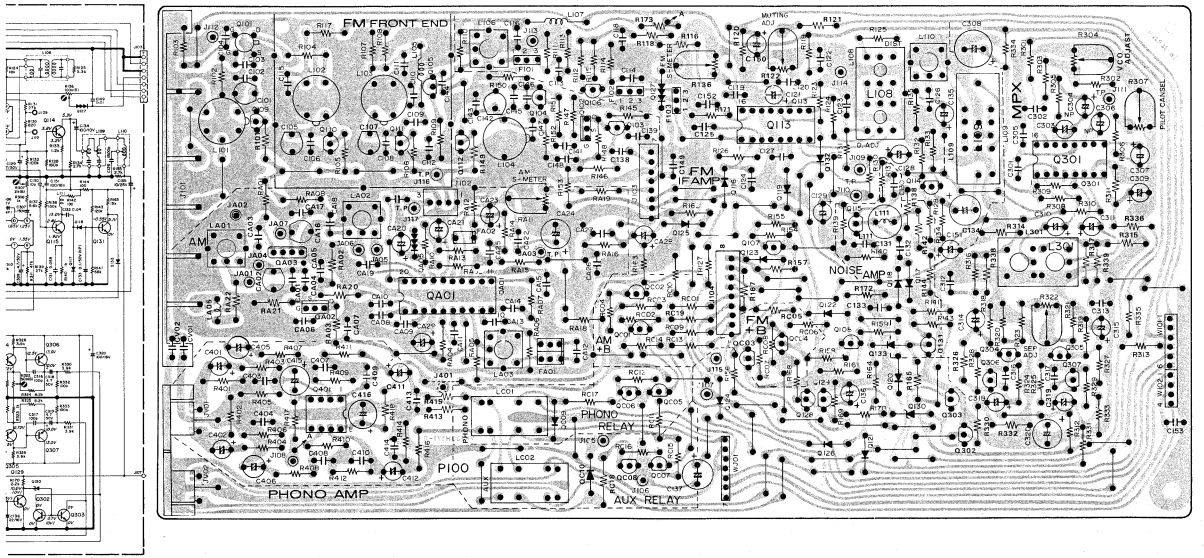
7.2 Filter/Loudness (PS00) Schematic Diagram and Component Locations

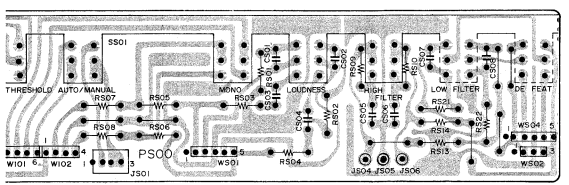




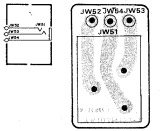
7.5 Tape Monitor Switch (PJ00) Sche



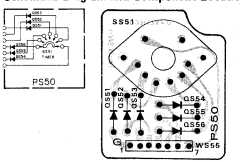




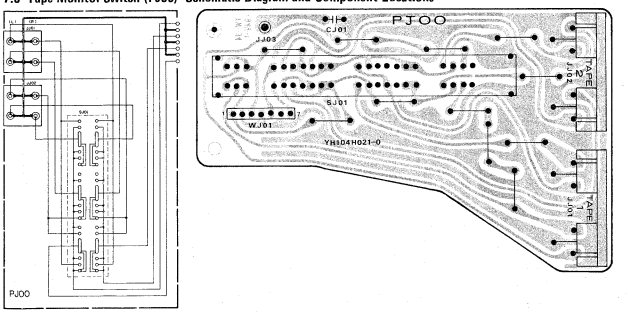
7.3 Head Phone (PW01)
Schematic Diagram and Component Locations



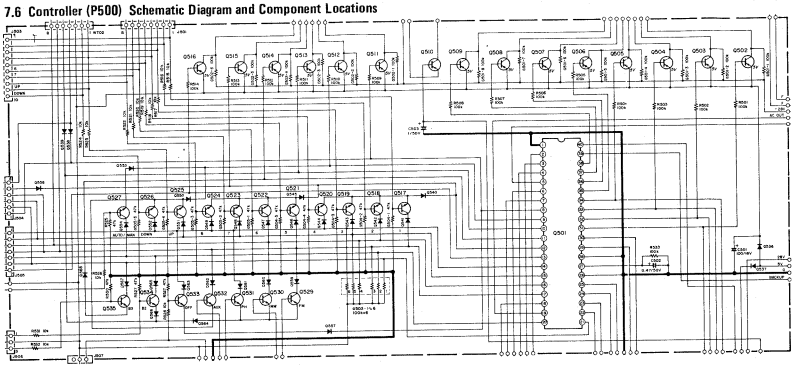
7.4 Timer Switch (PS50)
Schematic Diagram and Component Locations

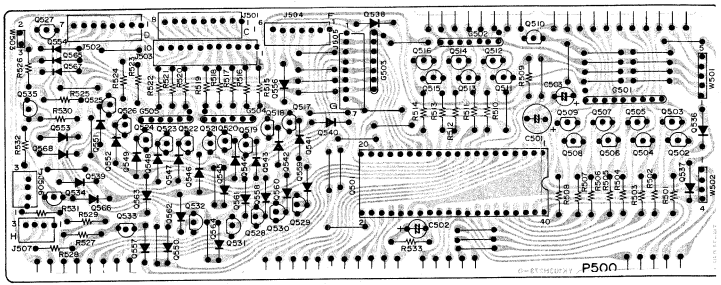


7.5 Tape Monitor Switch (PJ00) Schematic Diagram and Component Locations

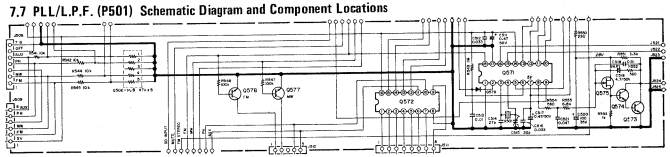


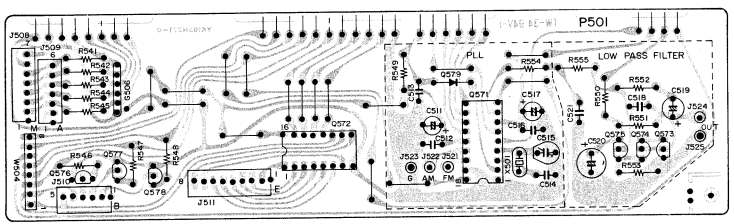
7.6 Controller (P500) Schematic Diagram and Component Locations



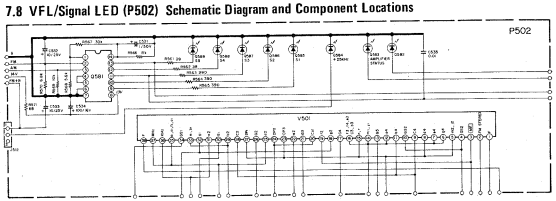


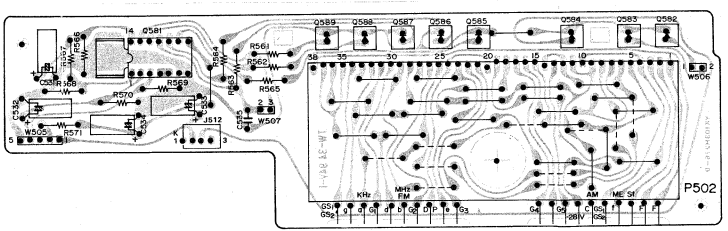
7.7 PLL/L.P.F. (P501) Schematic Diagram and Component Locations

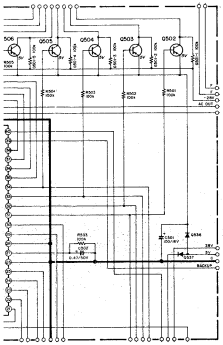


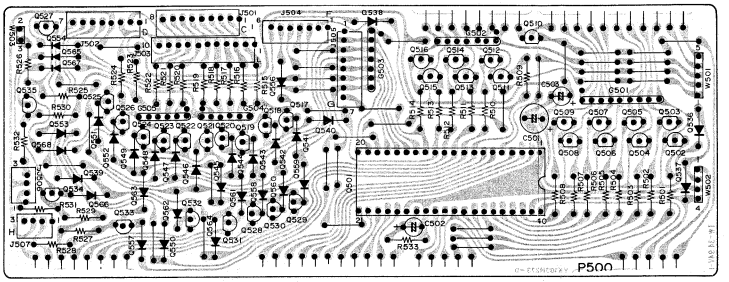


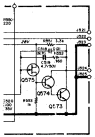
7.8 VFL/Signal LED (P502) Schematic Diagram and Component Locations

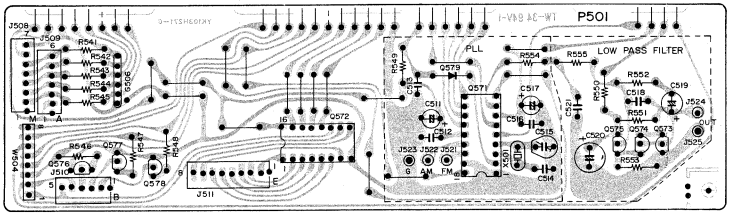


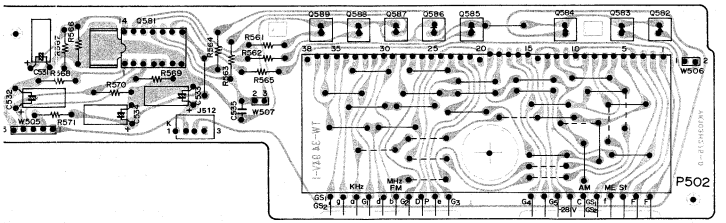




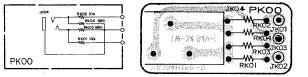




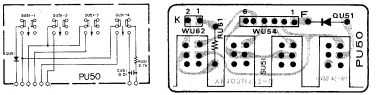




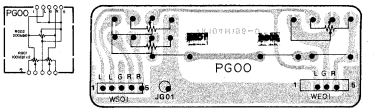
7.9 EQ Out (PK00) Schematic Diagram and Component Locations



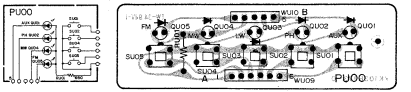
7.10 C/F Display (PU50) Schematic Diagram and Component Locations



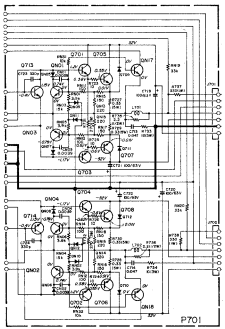
7.11 Vol/Valance (PG00) Schematic Diagram and Component Locations

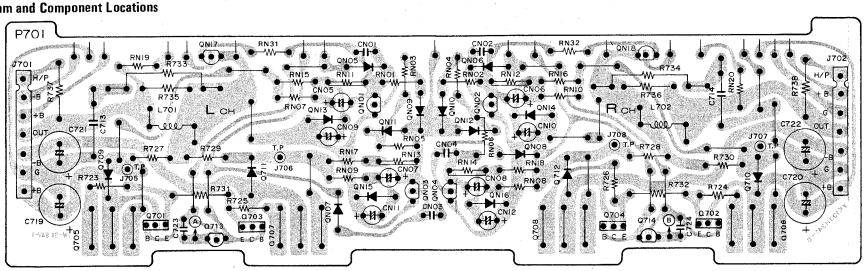


7.12 Function Switch (PU00) Schematic Diagram and Component Locations

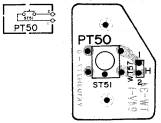


7.13 Main Amp. (P701) Schematic Diagram and Component Locations

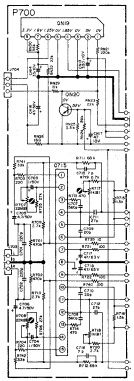


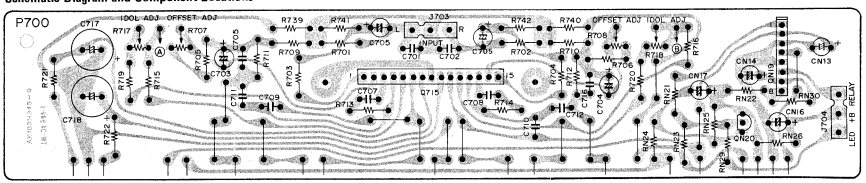


7.16 Power Off Switch (PT50) Schematic Diagram and Component Locations

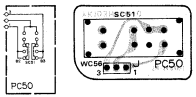


7.14 Main Amp. (P700) Schematic Diagram and Component Locations

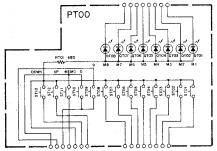


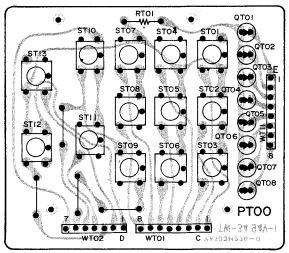


7.17 Scan Step Switch (PC50) Schematic Diagram and Component Locations

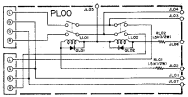


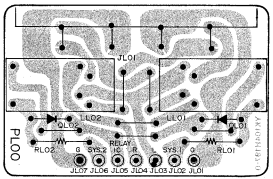
7.15 Key Board Switch (PT00) Schematic Diagram and Component Locations



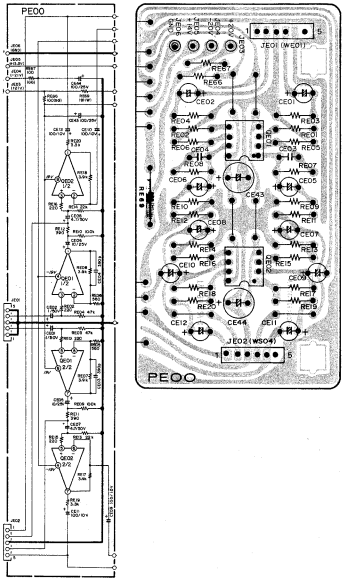


7.18 Speaker Protector (PL00) Schematic Diagram and Component Locations

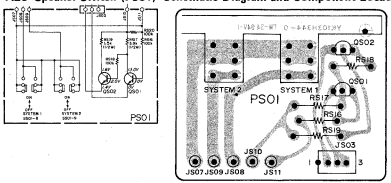




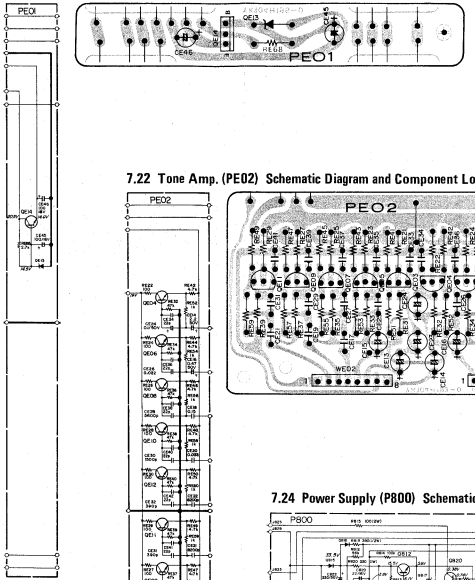
7.19 Tone Amp. (PE00) Schematic Diagram and Component Locations



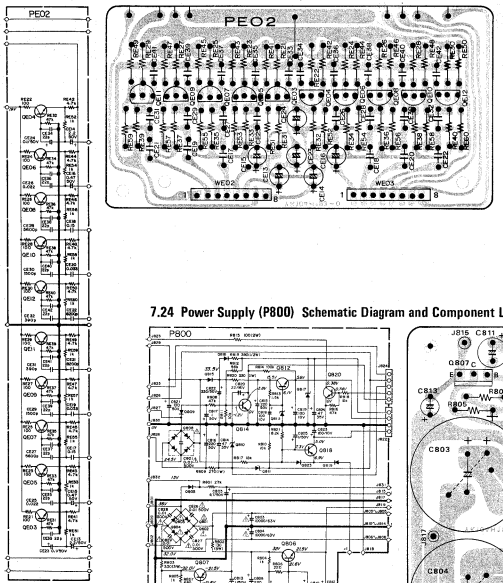
7.20 Speaker Switch (PS01) Schematic Diagram and Component Locations



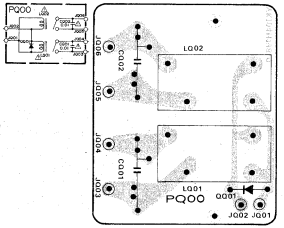
7.21 Connection (PE01) Schematic Diagram and Component Locations



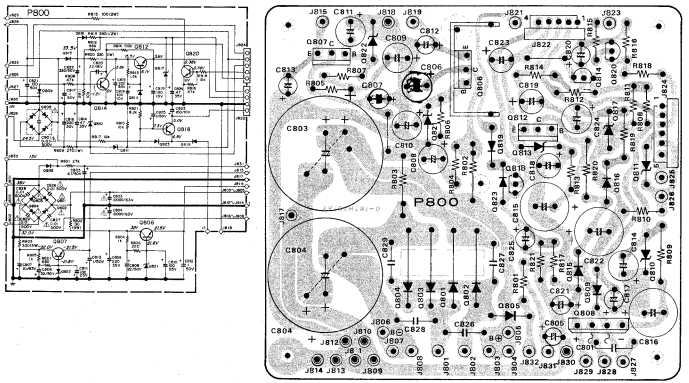
7.22 Tone Amp. (PE02) Schematic Diagram and Component Locations



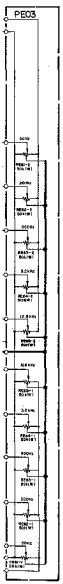
7.23 AC Power Relay (PQ00) Schematic Diagram and Component Locations

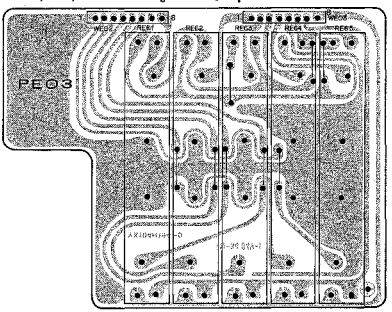


7.24 Power Supply (P800) Schematic Diagram and Component Locations

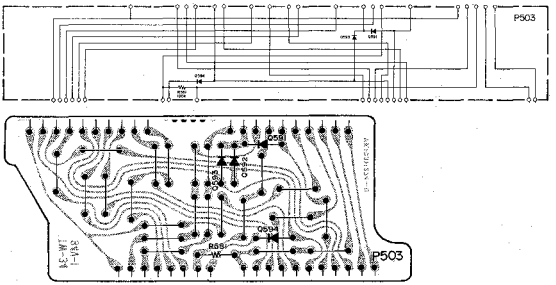


7.25 Tone Volume (PE03) Schematic Diagram and Component Locations

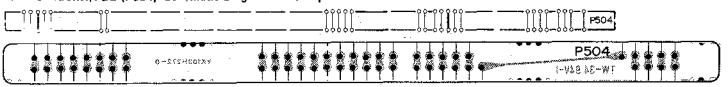




7.26 Controller/Fip (P503) Schematic Diagram and Component Locations

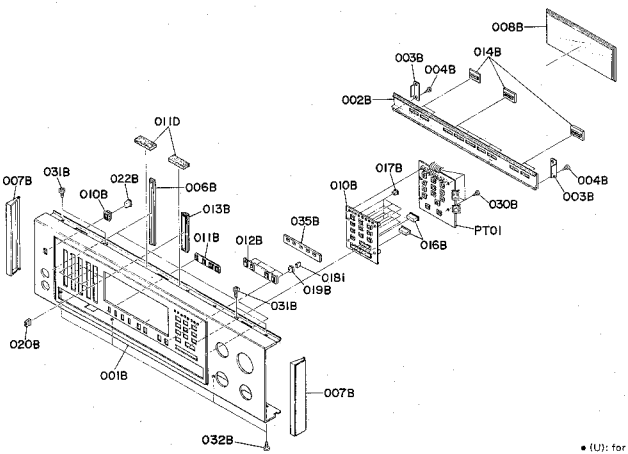


7.27 Controller/PLL (P504) Schematic Diagram and Component Locations



8. EXPLODED VIEW AND PARTS LIST

8.1 [C01-99] Front Panel

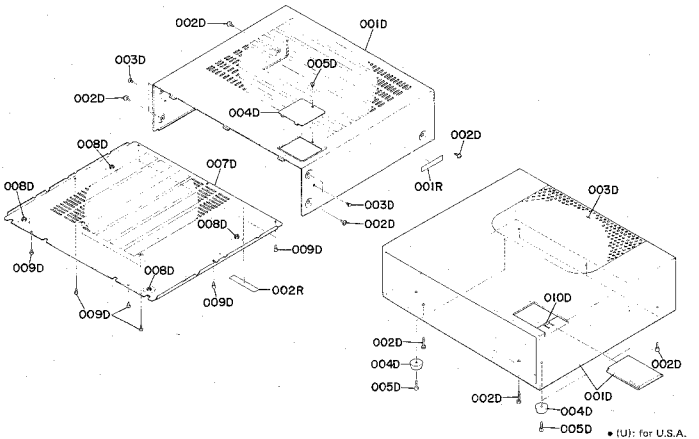


- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
A	1	1		104H063400	Front Panel Assembly
A1			1	104H063410	Front Panel Assembly
001B	1	1	1	104H063010	Escutcheon, Front Panel
002B	1	1	1	104H063050	Escutcheon, Sub Panel
003B	2	2	2	103H063030	Escutcheon, Sub Panel Side
004B	2	2	2	5128030480	B.H. Tapped Screw B3 x 4
006B	2	2	2	211H063020	Escutcheon
007B	2	2		211H067010	Cap, Panel Side
008B	1	1	1	103H158010	Window
010B	1	1	1	103H259010	Bushing
011B	1	1	1	103H259030	Bushing
012B	1	1	1	103H259020	Bushing, Function Switch
013B	5	5	5	2129259020	Bushing, Tone Control
014B	9	9	9	208H259010	Bushing, Push Switch
035B	1	1	1	103H056010	Buffer, Function Switch

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
016B	3	3	3	103H154020	Knob, Memo/Scan
017B	10	10	10	103H154030	Knob, Preset
019B	4	4	4	103H154050	Knob, Function Switch
020B	5	5	5	2129154040	Knob, Tone Control
030B	4	4	4	5130260680	P.H. Tapped Screw P2.6 x 6
031B	4	4	4	5128030650	B.H. Tapped Screw B3 x 6
032B	4	4	4	5128030880	B.H. Tapped Screw B3 x 8
022B	1	1	1	103H154030	Knob Power Off
011D	2	2		2965118010	Spacer
018i	4	4	4	103H259050	Bushing

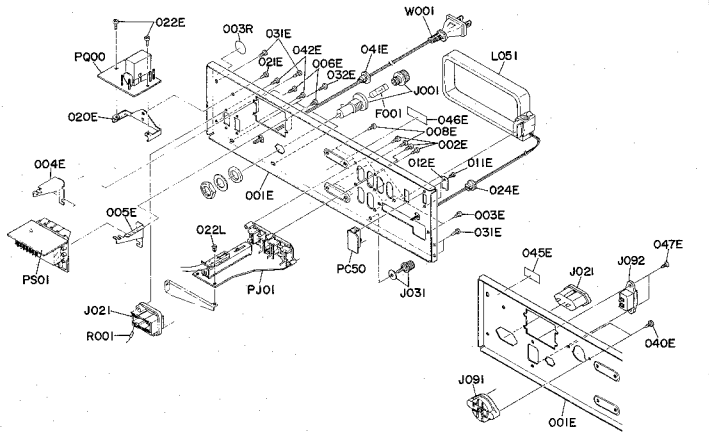
8.2 [CD2-99] Top Cover



REF. DESIG.	QTY U	QTY E	QTY P	PART NO.	DESCRIPTION
001D	1	1		103H257010	Lid, Top Cover
001D			1	103H064500	Case Assembly, Wood
002D	6			51260408Z0	B.T. Screw B4 x 8
002D		6		51260408U0	B.T. Screw B4 x 8
002D			5	51260320U0	B.T. Screw B3 x 20
003D	2	2		2991259110	Bushing
003D			1	2118003010	Punched Plate
004D	1	1		103H257020	Lid, Battery Cover
004D			4	2908057010	Leg
005D	1	1		2276005050	Clumper
005D			4	51524116A0	R.H. Wood Screw
007D	1	1		103H257030	Lid, Bottom Cover
007D			1	103H257030	Lid, Bottom Cover
008D	4	4		403H057010	Leg
009D	9	9		51280308B0	B.H. Tapped Screw B3 x 8
009D			4	51280308B0	B.H. Tapped Screw B3 x 8
010D			1	103H115010	Spring

REF. DESIG.	QTY U	QTY E	QTY P	PART NO.	DESCRIPTION
001R	1	1	1	2932861110	Label
002R	1	1	1	2578861010	Label

8.3 [CQ3-99] Rear Panel

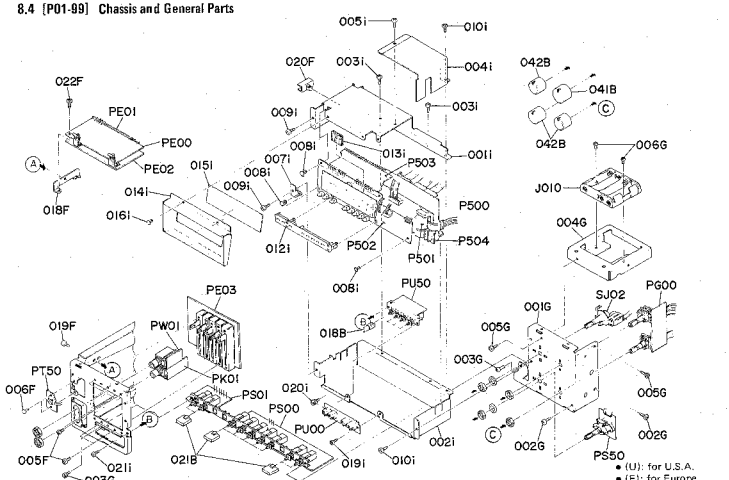


- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
001E	1			104H160210	Bracket, Rear Panel
001E		1		104H160220	Bracket, Rear Panel
001E			1	104H160230	Bracket, Rear Panel
002E	6	6	6	51280308U0	B.H. Tapped Screw B3 x 8
003E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
004E	1	1	1	103H160060	Bracket
005E	1	1	1	103H160070	Bracket
006E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
008E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
011E	2	2	2	51102604S0	B.H.M. Screw B2.6 x 4
012E	1	1	1	2137114010	Stopper
020E	1	1	1	103H160040	Bracket, Relay P.W. Board
021E	1	1	1	51280308U0	B.H. Tapped Screw B3 x 8
022E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
024E	1	1	1	1455259010	Bushing, Antenna Cord
031E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
032E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
040E		2	2	51280308U0	B.H. Tapped Screw B3 x 8
041E	1		1	1455259030	Bushing, AC Cord
042E	2		2	51280310U0	B.H. Tapped Screw B3 x 10
045E		1		4581861010	Label
046E	1	1	1	2112265010	Indicator
047E		2		51870308U0	Screw 3 x 8
003R	1			9511101070	Label, UL

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
⚠ F001	1			FS10500500	Fuse 5A 250V
⚠ F001		1		FS10250800	Fuse 2.5A 250V
⚠ F001			1	FS10500600	Fuse 5A 250V
⚠ J001	1			YJ08000310	Jack, Fuse Holder
⚠ J001		1		YJ08000290	Jack, Fuse Holder
⚠ J001			1	YJ08000300	Jack, Fuse Holder
⚠ J021	1		1	YJ04000750	Jack, AC Outlet
⚠ J021		1		YJ04000850	Jack, AC Outlet
J031	1	1	1	YL03010250	Terminal, Ground
⚠ J091		1	1	BY05080040	Voltage Selector
⚠ J092		1		YP04000590	Plug, AC Inlet
L051	1	1	1	LA00015010	Antenna Coil, Loop
R001	1			RC10225120	Resistor 2.2MΩ ±10% ½W
⚠ W001	1			YC01900070	A.C. Power Cord
⚠ W001			1	YC01800190	A.C. Power Cord

8.4 [P01-99] Chassis and General Parts

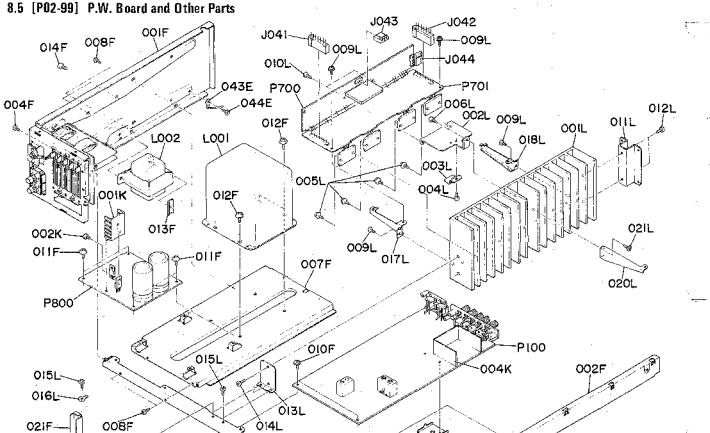


- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
018B	4	4	4	103H154040	Knob
021B	9	9	9	208H154060	Knob, Push Switch
041B	1	1	1	103H154010	Knob, Volume
042B	3	3	3	208H154020	Knob
005F	5	5	5	511003306A9	B.H.M. Screw B3 x 6
006F	2	2	2	2276005050	Clamper
017F	2	2	2	2136271020	Holder
018F	1	1	1	104H160030	Bracket
019F	1	1	1	51280308B0	B.H. Tapped Screw B3 x 8
020F	1	1	1	2218271020	Holder
022F	1	1	1	51260308B0	B.T. Screw B3 x 8
001G	1	1	1	103H160010	Bracket, Front Shassis
002G	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
003G	2	2	2	51100306A9	B.H.M. Screw B3 x 6
004G	1	1	1	103H160020	Bracket, Battery Case
005G	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
006G	2	2	2	51302606T0	P.H. Tapped Screw P2.6 x 6

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
001i	1	1	1	103H109010	Shield, Top
002i	1	1	1	103H109020	Shield, Bottom
003i	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
004i	1	1	1	103H109040	Shield
005i	1	1	1	51280306B0	B.H. Tapped Screw B3 x 6
007i	1	1	1	103H160090	Bracket
008i	4	4	4	2276005050	Clamper
009i	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
010i	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
012i	1	1	1	103H259040	Bushing, LED
013i	2	2	2	2137118010	Spacer
014i	1	1	1	103H302020	Dial
015i	1	1	1	2137158050	Window
016i	2	2	2	2912259020	Bushing
019i	1	1	1	51280306B0	B.H. Tapped Screw B3 x 6
020i	1	1	1	103H101010	Support
021i	1	1	1	51100306A9	B.H.M. Screw B3 x 6
J010	1	1	1	YJ14000060	Battery Case
SJ02	1	1	1	SR00050100	Rotary Switch, Tape Monitor

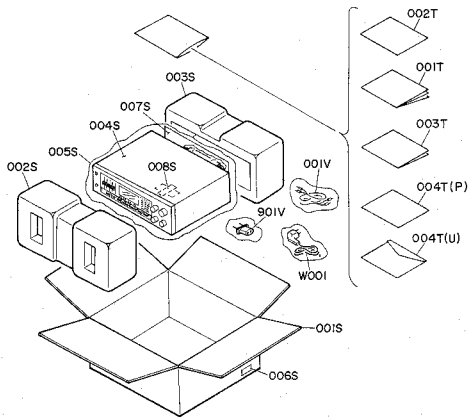
8.5 [P02-99] P.W. Board and Other Parts



REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
043E	1	1	1	62030049W0	Lug
044E	1	1	1	51280308B0	B.H. Tapped Screw B3 x 8
001F	1	1	1	103H105020	Chassis, (L)
002F	1	1	1	103H126010	Stay, (R)
003F	1	1	1	103H126020	Stay, Center
004F	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
007F	1	1	1	104H105010	Chassis
008F	4	4	4	51280308B0	B.H. Tapped Screw B3 x 8
010F	2	2	2	51260308B0	B.T. Screw B3 x 8
011F	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
012F	4	4	4	51280410B0	B.H. Tapped Screw B3 x 8
013F	2	2	2	2922005010	Clamper
014F	2	2	2	51100408A9	B.H.M. Screw B4 x 8
021F	1	1	1	103H160130	Bracket
001L	1	1	1	104H267010	Heatsink, Main
002L	1	1	1	103H267020	Heatsink
003L	1	1	1	2116115010	Spring
004L	1	1	1	51280308B0	B.H. Tapped Screw B3 x 8
005L	8	8	8	51280312B0	B.H. Tapped Screw B3 x 12
006L	1	1	1	51280310B0	B.H. Tapped Screw B3 x 10
009L	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
010L	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
011L	1	1	1	103H160100	Bracket

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
012L	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
013L	1	1	1	2276160040	Bracket
014L	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
015L	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
016L	1	1	1	62030049W0	Lug
017L	1	1	1	104H160010	Bracket
018L	1	1	1	104H160020	Bracket
019L	2	2	2	51260308B0	B.T. Screw B3 x 8
020L	1	1	1	104H160040	Bracket
021L	1	1	1	51280308B0	B.H. Tapped Screw B3 x 8
001K	1	1	1	202H267030	Heatsink
002K	1	1	1	51280308B0	B.H. Tapped Screw B3 x 8
004K	1	1	1	2137109010	Shield
005K	1	1	1	2850109020	Shield
J041	1	1	1	YJ06001060	Jack, (7P)
J042	1	1	1	YJ06001060	Jack, (7P)
J043	1	1	1	YJ06001240	Jack, (3P)
J044	1	1	1	YJ06001240	Jack, (3P)
⚠ L001	1			TS18505090	Power Transformer
⚠ L001		1		TS18505100	Power Transformer
⚠ L001			1	TS18505110	Power Transformer
⚠ L002	1			TS14806350	Power Transformer, Back up
⚠ L002		1		TS15405080	Power Transformer, Back up
⚠ L002			1	TS15405100	Power Transformer, Back up

8.6 [HD1-99] Packing Materials



- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
001S	1			104H801010	Packing Case
001S		1		104H801020	Packing Case
001S			1	104H801050	Packing Case
002S	1	1	1	211H809010	Cushion, Front
003S	1	1	1	211H809020	Cushion, Rear
004S	1	1	1	2918107260	Sheet
005S	1	1	1	9090909030	Polyethylene Sheet
006S	2			9526019010	Serial No. Card
006S		4		9526019060	Serial No. Card
006S			3	9526019050	Serial No. Card
007S	1		1	2918107370	Sheet
008S		1		2731821010	Silicagel

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
001T	1			103H851010	Instructions
001T		1	1	103H851310	Instructions
002T	1			104H851020	Instructions, Spec
002T		1	1	104H851320	Instructions, Spec
003T	1			2818854020	Guarantee Card
003T		1		104H856010	Circuit Diagram
003T			1	2818854010	Guarantee Card
004T	1			2225813010	Envelope
004T			1	9650000010	S. Station Card
001V	1	1	1	ZA02000070	EXT. Antenna
901V			1	YJ04000240	Jack, AC Adaptor
⚠ W001		1		ZC01805030	A.C. Power Cord

8.7 ELECTRICAL PARTS LIST

- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION		
					P100-TUNER/PHONO AMP. CIRCUIT BOARD		
P100	1	1	1	YK103H1710	P.W. Board, Tuner/Phono Amp.		
	1		1	ZZ104H1710	P.W. Board Assembly		
		1		ZZ104H8710	P.W. Board Assembly		
					P100-CAPACITORS		
CA02	1	1	1	CT12000090	Trimming	20pF	
CA03	1	1	1	DK17103300	Ceramic	0.01μF	±20%
CA04	1	1	1	DD10020370	Ceramic	2pF	±0.25pF
CA05	1	1	1	DD15391370	Ceramic	390pF	±5%
CA06	1	1	1	DK18403320	Ceramic	0.04μF	+80%–20%
CA07	1	1	1	DK18403320	Ceramic	0.04μF	+80%–20%
CA08	1	1	1	DK18102300	Ceramic	1000pF	
CA09	1	1	1	DK17103300	Ceramic	0.01μF	±20%
CA10	1	1	1	DK18403320	Ceramic	0.04μF	+80%–20%
CA11	1	1	1	DK18223310	Ceramic	0.022μF	+80%–20%
CA12	1	1	1	DD15470370	Ceramic	47pF	±5%
CA13	1	1	1	DK18223310	Ceramic	0.022μF	+80%–20%
CA14	1	1	1	DK18223310	Ceramic	0.022μF	+80%–20%
CA15	1	1	1	DK18102300	Ceramic	1000pF	
CA16	1	1	1	CT12000090	Trimming	20pF	
CA17	1	1	1	DD10050370	Ceramic	5pF	±0.5pF
CA18	1	1	1	DF55431090	Film	430pF	±5%
CA19	1	1	1	DK18223320	Ceramic	0.022μF	+80%–20%
CA20	1	1	1	EA10602530	Elect	10μF	50V
CA21	1	1	1	EA10602530	Elect	10μF	50V
CA22	1	1	1	DK18403320	Ceramic	0.04μF	+80%–20%
CA23	1	1	1	EA47405030	Elect	0.47μF	50V
CA24	1	1	1	EA10701630	Elect	100μF	16V
CA25	1	1	1	DK17103300	Ceramic	0.01μF	±20%
CA26	1	1	1	DF16273300	Film	0.027μF	±10%
CA27	1	1	1	DF17682300	Film	6800pF	±20%
CA28	1	1	1	DF17403300	Film	0.04μF	±20%
CA29	1	1	1	EA10602530	Elect	10μF	25V
CA30	1	1	1	DK17103300	Ceramic	0.01μF	±20%
CV01	1	1	1	DK17103300	Ceramic	0.01μF	±20%
CV02	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C101	1	1	1	CT10600090	Trimming	6pF	
C103	1	1	1	DD15470370	Ceramic	47pF	±5%
C104	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C105	1	1	1	CT10600090	Trimming	6pF	
C106	1	1	1	DD10030300	Ceramic	3pF	±0.25pF
C107	1	1	1	CT10600090	Trimming	6pF	
C108	1	1	1	DD10040300	Ceramic	4pF	±0.25pF
C109	1	1	1	DD10030370	Ceramic	3pF	±0.25pF
C110	1	1	1	DD11100370	Ceramic	10pF	±0.5pF
C111	1	1	1	DK16331300	Ceramic	330pF	±10%
C112	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C113	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C114	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C115	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C116	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C118	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C119	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C120	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C121	1	1	1	EA47405030	Elect	0.47μF	50V

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION		
C122	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C123	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C124	1	1	1	DK18403320	Ceramic	0.04μF	+80%–20%
C125	1	1	1	DK18403320	Ceramic	0.04μF	+80%–20%
C126		1		DK16182300	Ceramic	1800pF	±10%
C127	1	1	1	DD15330360	Ceramic	33pF	±5%
C128	1	1	1	EA47505030	Elect	4.7μF	50V
C129	1	1	1	EA47405030	Elect	0.47μF	50V
C130	1	1	1	DD11100370	Ceramic	10pF	±0.5pF
C131	1	1	1	DF16683300	Film	0.068μF	±10%
C132	1	1	1	DF17403300	Film	0.04μF	±20%
C133	1	1	1	DF16104300	Film	0.01μF	±10%
C134		1		EA10701030	Elect	100μF	10V
C135		1		EA10602530	Elect	10μF	25V
C136	1	1	1	EA22601630	Elect	22μF	16V
C137	1	1	1	EA10701630	Elect	100μF	16V
C138	1	1	1	DK16331300	Ceramic	330pF	±10%
C139	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C141	1	1	1	DD10020300	Ceramic	2pF	±0.25pF
C142	1	1	1	CT10600090	Trimming	6pF	
C143	1	1	1	DD10030300	Ceramic	3pF	±0.25pF
C144	1	1	1	DD10010370	Ceramic	1pF	±0.25pF
C145	1	1	1	DD11100300	Ceramic	10pF	±0.5pF
C146	1	1	1	DD15300300	Ceramic	30pF	±5%
C147	1	1	1	DD15150300	Ceramic	15pF	±5%
C148	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C149	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C150	1	1	1	EA10505030	Elect	1μF	50V
C151	1	1	1	EA10701630	Elect	100μF	16V
C152	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C155	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C153	1	1	1	DK17103300	Ceramic	0.01μF	±20%
C301	1	1	1	DF15473300	Film	0.047μF	±5%
C302	1	1	1	DF55511090	Film	510pF	±5%
C303	1	1	1	EQ10505030	Elect	1μF	50V
C304	1	1	1	EA47505030	Elect	4.7μF	50V
C305	1	1	1	DF55821090	Film	820pF	±5%
C306	1	1	1	EQ10505030	Elect	1μF	50V
C307	1	1	1	EA10505030	Elect	1μF	50V
C308	1	1	1	EA22701630	Elect	220μF	16V
C309	1	1	1	EA47505030	Elect	4.7μF	50V
C310	1	1	1	EA10505030	Elect	1μF	50V
C311	1	1	1	EA10505030	Elect	1μF	50V
C312	1		1	DF15332300	Film	3300pF	±5%
C312		1		DF15222300	Film	2200pF	±5%
C313	1		1	DF15332300	Film	3300pF	±5%
C313		1		DF15222300	Film	2200pF	±5%
C314	1	1	1	EA10405030	Elect	0.1μF	50V
C315	1	1	1	EA10405030	Elect	0.1μF	50V
C316	1	1	1	DD16101300	Ceramic	100pF	±10%
C317	1	1	1	DD16101300	Ceramic	100pF	±10%
C318	1	1	1	EA47505030	Elect	4.7μF	50V
C319	1	1	1	EA47505030	Elect	4.7μF	50V
C320	1	1	1	EA10701630	Elect	100μF	16V
C401	1	1	1	EA33505030	Elect	3.3μF	50V
C402	1	1	1	EA33505030	Elect	3.3μF	50V
C403	1	1	1	DK16331300	Ceramic	330pF	±10%
C404	1	1	1	DK16331300	Ceramic	330pF	±10%
C405	1	1	1	EA47601630	Elect	47μF	16V
C406	1	1	1	EA47601630	Elect	47μF	16V
C407	1	1	1	DF15332300	Film	3300pF	±5%

- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
C408	1	1	1	DF15332300	Film 3300pF ±5%
C409	1	1	1	DF15123300	Film 0.012μF ±5%
C410	1	1	1	DF15123300	Film 0.012μF ±5%
C411	1	1	1	EA47505030	Elect 4.7μF 50V
C412	1	1	1	EA47505030	Elect 4.7μF 50V
C413	1	1	1	DK16101300	Ceramic 100pF ±10%
C414	1	1	1	DK16101300	Ceramic 100pF ±10%
C415	1	1	1	EA10702530	Elect 100μF 25V
C416	1	1	1	EA10702530	Elect 100μF 25V
					P100-RESISTORS (All Resistors are ±5% and ¼W)
RA01	1	1	1	GD05105140	1MΩ
RA02	1	1	1	GD05102140	1KΩ
RA03	1	1	1	GD05153140	15KΩ
RA04	1	1	1	GD05152140	1.5KΩ
RA05	1	1	1	GD05101140	100Ω
RA06	1	1	1	GD05222140	2.2KΩ
RA07	1	1	1	GD05471140	470Ω
RA08	1	1	1	GD05104140	100KΩ
RA09	1	1	1	GD05222140	2.2KΩ
RA10	1	1	1	GD05103140	10KΩ
RA11	1	1	1	RA01030260	10KΩ(B), Trimming
RA12	1	1	1	GD05820140	820Ω
RA13	1	1	1	GD05103140	10KΩ
RA14	1	1	1	GD05101140	100Ω
RA15	1	1	1	GD05102140	1KΩ
RA16	1	1	1	GD05153140	15KΩ
RA18	1	1	1	GG05101140	100Ω
RA19	1	1	1	GD05333140	33KΩ
RA20	1	1	1	GD05221140	220Ω
RA21	1	1	1	GD05225140	2.2MΩ
RA22	1	1	1	GD05152140	1.5KΩ
RC01	1	1	1	GD05103140	10KΩ
RC02	1	1	1	GD05223140	22KΩ
RC03	1	1	1	GD05104140	100KΩ
RC04	1	1	1	GD05104140	100KΩ
RC05	1	1	1	GD05103140	10KΩ
RC06	1	1	1	GD05223140	22KΩ
RC07	1	1	1	GD05104140	100KΩ
RC08	1	1	1	GD05104140	100KΩ
RC09	1	1	1	GD05103140	10KΩ
RC10	1	1	1	GD05223140	22KΩ
RC11	1	1	1	GD05104140	100KΩ
RC12	1	1	1	GD05103140	10KΩ
RC13	1	1	1	GD05103140	10KΩ
RC14	1	1	1	GD05223140	22KΩ
RC15	1	1	1	GD05104140	100KΩ
RC16	1	1	1	GD05103140	10KΩ
RC17	1	1	1	GG05122120	1.2KΩ ½W
RC18	1	1	1	GG05122120	1.2KΩ ½W
R101	1	1	1	GD05104140	100KΩ
R102	1	1	1	GD05104140	100KΩ
R103	1	1	1	GD05104140	100KΩ
R104	1	1	1	GD05101140	100Ω
R105	1	1	1	GD05104140	100KΩ
R106	1	1	1	GD05104140	100KΩ
R107	1	1	1	GD05472140	4.7KΩ
R108	1	1	1	GD05223140	22KΩ
R109	1	1	1	GD05332140	3.3KΩ
R110	1	1	1	GD05273140	27KΩ

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
R111	1	1	1	GD05331140	330Ω
R112	1	1	1	GD05163140	16KΩ
R113	1	1	1	GD05272140	2.7KΩ
R114	1	1	1	GD05102140	1KΩ
R115	1	1	1	GD05331140	330Ω
R116	1	1	1	GD05223140	22KΩ
R117	1	1	1	GD05101140	100Ω
R118	1	1	1	GD05101140	100Ω
R119	1	1	1	GG05470140	47Ω
R120	1	1	1	GD05183140	18KΩ
R121	1	1	1	GD05332140	3.3KΩ
R122	1	1	1	RA01030260	10KΩ(B), Trimming
R123	1	1	1	GD05124140	120KΩ
R124	1	1	1	GD05183140	18KΩ
R125	1	1	1	GD05332140	3.3KΩ
R126	1	1	1	GD05331140	330Ω
R127	1	1	1	GD05104140	100KΩ
R128		1		GD05184140	180KΩ
R130	1	1	1	GD05821140	820Ω
R131	1	1	1	GD05273140	27KΩ
R132		1		GD05104140	100KΩ
R133		1		GD05122140	1.2KΩ
R134		1		GD05272140	2.7KΩ
R135		1		GD05272140	2.7KΩ
R136	1	1	1	RA01040110	100KΩ(B), Trimming
R137	1	1	1	GD05562140	5.6KΩ
R138	1	1	1	GD05104140	100KΩ
R139	1	1	1	GD05273140	27KΩ
R140	1	1	1	GD05102140	1KΩ
R141	1	1	1	GD05563140	56KΩ
R142	1	1	1	GD05101140	100Ω
R143	1	1	1	GD05124140	120KΩ
R144	1	1	1	GG05101140	100Ω
R145	1	1	1	GD05102140	1KΩ
R146	1	1	1	GD05331140	330Ω
R147	1	1	1	GD05104140	100KΩ
R148	1	1	1	GD05821140	820Ω
R149	1	1	1	GD05104140	100KΩ
R150	1	1	1	GD05103140	10KΩ
R151	1	1	1	GD05103140	10KΩ
R152	1	1	1	GD05222140	2.2KΩ
R153	1	1	1	GD05101140	100Ω
R154	1	1	1	GD05222140	2.2KΩ
R155	1	1	1	GD05223140	22KΩ
R156	1	1	1	GD05103140	10KΩ
R157	1	1	1	GD05104140	100KΩ
R158	1	1	1	GD05153140	15KΩ
R159	1	1	1	GD05183140	18KΩ
R161	1	1	1	GD05103140	10KΩ
R162	1	1	1	GD05104140	100KΩ
R163	1	1	1	GD05153140	15KΩ
R164	1	1	1	GD05153140	15KΩ
R165	1	1	1	GD05153140	15KΩ
R167	1	1	1	GD05103140	10KΩ
R168	1	1	1	GD05334140	330KΩ
R169	1	1	1	GD05333140	33KΩ
R170	1	1	1	GD05222140	2.2KΩ
R171	1	1	1	GD05103140	10KΩ
R172	1	1	1	GD05103140	10KΩ
R173	1	1	1	GD05564140	560KΩ

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
R301	1	1	1	GD05473140	47KΩ
R302	1	1	1	GD05224140	220KΩ
R303	1	1	1	GD05153140	15KΩ
R304	1	1	1	RA05020160	5KΩ(B), Trimming
R305	1	1	1	GD05821140	820Ω
R306	1	1	1	GD05102140	1KΩ
R307	1	1	1	RA02020180	2KΩ(B), Trimming
R308	1	1	1	GD05472140	4.7KΩ
R309	1	1	1	GD05472140	4.7KΩ
R310	1	1	1	GD05103140	10KΩ
R311	1	1	1	GD05473140	47KΩ
R312	1	1	1	GG05101140	100Ω
R313	1	1	1	GD05154140	150KΩ
R314	1	1	1	GD05472140	4.7KΩ
R315	1	1	1	GD05472140	4.7KΩ
R316	1	1	1	GD05273140	27KΩ
R317	1	1	1	GD05273140	27KΩ
R318	1	1	1	GD05154140	150KΩ
R319	1	1	1	GD05154140	150KΩ
R320	1	1	1	GD05471140	470Ω
R321	1	1	1	GD05471140	470Ω
R322	1	1	1	RA05030090	50KΩ(B), Trimming
R323	1	1	1	GD05102140	1KΩ
R324	1	1	1	GD05822140	8.2KΩ
R325	1	1	1	GD05822140	8.2KΩ
R326	1	1	1	GD05155140	1.5MΩ
R327	1	1	1	GD05155140	1.5MΩ
R328	1	1	1	GD05392140	3.9KΩ
R329	1	1	1	GD05392140	3.9KΩ
R330	1	1	1	GD05392140	3.9KΩ
R331	1	1	1	GD05392140	3.9KΩ
R332	1	1	1	GD05104140	100KΩ
R333	1	1	1	GD05104140	100KΩ
R334	1	1	1	GG05470140	47Ω
R335	1	1	1	GD05154140	150KΩ
R336	1	1	1	GD05333140	33KΩ
R338	1	1	1	GD05184140	180KΩ
R339	1	1	1	GD05184140	180KΩ
R401	1	1	1	GD05104140	100KΩ
R402	1	1	1	GD05104140	100KΩ
R403	1	1	1	GD05222140	2.2KΩ
R404	1	1	1	GD05222140	2.2KΩ
R405	1	1	1	GD05104140	100KΩ
R406	1	1	1	GD05104140	100KΩ
R407	1	1	1	GD05471140	470Ω
R408	1	1	1	GD05471140	470Ω
R409	1	1	1	GD05223140	22KΩ
R410	1	1	1	GD05223140	22KΩ
R411	1	1	1	GD05274140	270KΩ
R412	1	1	1	GD05274140	270KΩ
R413	1	1	1	GD05224140	220KΩ
R414	1	1	1	GD05224140	220KΩ
R415	1	1	1	GD05221140	220Ω
R416	1	1	1	GD05221140	220Ω
R417	1	1	1	GG05101140	100Ω
R418	1	1	1	GG05101140	100Ω

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					P100-SEMICONDUCTORS
QA01	1	1	1	HC10068030	IC LA1245
QA02	1	1	1	HF200551D0	F.E.T. 2SK55(D)
QA03	1	1	1	HD40002420	Varicap KV-1226
QA05	1	1	1	HV00006120	Varistor MV-203
QC01	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC02	1	1	1	HT107332A0	Transistor 2SA733(Q or R)
QC03	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC04	1	1	1	HT107332A0	Transistor 2SA733(Q or R)
QC05	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC06	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC07	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC08	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC09	1	1	1	HD20015030	Diode DS135D
QC10	1	1	1	HD20015030	Diode DS135D
Q101	1	1	1	HF400451B0	F.E.T. 3SK45(B)
Q102	1	1	1	HF200551D0	F.E.T. 2SK55(D)
Q103	1	1	1	HT308291D0	Transistor 2SC829(D)
Q104	1	1	1	HT308291C0	Transistor 2SC829(C)
Q105	1	1	1	HT310471C0	Transistor 2SC1047(C)
Q106	1	1	1	HT308291C0	Transistor 2SC829(C)
Q107	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q108	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q109	1	1	1	HD40004010	Varicap 1SV55
Q110	1	1	1	HD40004010	Varicap 1SV55
Q111	1	1	1	HD40004010	Varicap 1SV55
Q112	1	1	1	HD40004010	Varicap 1SV55
Q113	1	1	1	HC10028030	IC LA1231N
Q114		1		HT309452C0	Transistor 2SC945(K or P)
Q115	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q116	1	1	1	HD20001210	Diode 1S2473
Q117	1	1	1	HD20001210	Diode 1S2473
Q118	1	1	1	HD20001210	Diode 1S2473
Q119	1	1	1	HD20001210	Diode 1S2473
Q120	1	1	1	HD20001210	Diode 1S2473
Q121	1	1	1	HD20001210	Diode 1S2473
Q122	1	1	1	HD20001210	Diode 1S2473
Q123	1	1	1	HD20001210	Diode 1S2473
Q124	1	1	1	HD20001210	Diode 1S2473
Q125	1	1	1	HD20001210	Diode 1S2473
Q126	1	1	1	HD20001210	Diode 1S2473
Q127	1	1	1	HV00006120	Varistor MV-203
Q128	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q129	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q130	1	1	1	HD30029090	Zener WZ090
Q131	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q132	1	1	1	HD20001210	Diode 1S2473
Q133	1	1	1	HD20001210	Diode 1S2473
Q301	1	1	1	HC10001420	IC KB4437
Q302	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q303	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q304	1	1	1	HT326342B0	Transistor 2SC2634(S or T)
Q305	1	1	1	HT326342B0	Transistor 2SC2634(S or T)
Q306	1	1	1	HT111272B0	Transistor 2SA1127(S or T)
Q307	1	1	1	HT111272B0	Transistor 2SA1127(S or T)
Q401	1	1	1	HC10013370	IC TL4558PB

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					P100-MISCELLANEOUS
FA01	1	1	1	FG450302B0	Ceramic Filter SFZ450B-3
FA02	1	1	1	FF10045270	Ceramic Filter BFU450C
F101	1	1	1	FF11070530	Ceramic Filter 10.7MHz MD-1
F102	1		1	FF11070530	Ceramic Filter 10.7MHz MD-1
F102		1		FF11070570	Ceramic Filter 10.7MHz MS3G
F103	1		1	FF11070530	Ceramic Filter 10.7MHz MD-1
F103		1		FF11070570	Ceramic Filter 10.7MHz MS3G
JV01	1			YT02040350	Terminal, Phono/Aux Input
JV01		1	1	YT02040340	Terminal, Phono/Aux Input
J101	1	1	1	YJ01050010	Terminal, Antenna
J102	1	1	1	YJ06002430	Jack, (3P)
J103	1	1	1	YJ06002460	Jack, (7P)
J104	1	1	1	YJ06002270	Jack, (8P)
LA01	1	1	1	LA10015010	Antenna Coil, AM
LA02	1	1	1	LO10013170	OSC Coil, AM
LA03	1	1	1	LH10010730	I.F.T. Coil, AM IF
LA05	1	1	1	LC11540040	Choke Coil, 150μH
LC01	1	1	1	LY20240020	Relay, 2V 23mA
LC02	1	1	1	LY20240020	Relay, 2V 23mA
L101	1	1	1	LA12026190	Antenna Coil, FM
L102	1	1	1	LA12026200	Antenna Coil, FM RF
L103	1	1	1	LA12026210	Antenna Coil, FM RF
L104	1	1	1	LO12046030	OSC Coil, FM
L105	1	1	1	LC17510010	Choke Coil, 0.75μH
L106	1	1	1	LI10018110	I.F.T. Coil, FM IF
L107	1	1	1	LC13320050	Choke Coil, 3.3μH
L108	1	1	1	LI14030020	I.F.T. Coil, FM DET
L109		1		LS35040010	M.P.X. Coil
L110		1		LS10290190	M.P.X. Coil
L111	1	1	1	LC11050060	Choke Coil, 1mH
L301	1	1	1	LS20010020	M.P.X. Coil, L.P.F. (38KHz)
W101	1	1	1	YU06120260	Jumper Lead, (6P)
W102	1	1	1	YU04120260	Jumper Lead, (4P)
					P500-CONTROLER CIRCUIT BOARD
P500	1	1	1	YK103H2730	P.W. Board, Controler
	1	1	1	ZZ103H2730	P.W. Board Assembly
					P500-CAPACITORS
C501	1	1	1	EA10701630	Elect 100μF 16V
C502	1	1	1	EA47405030	Elect 0.47μF 50V
C503	1	1	1	EA10505030	Elect 1μF 50V
					P500-RESISTORS (All Resistors are ±5% and ¼W)
G501	1	1	1	BW10104020	100KΩ x 8 1/8W Compo.
G502	1	1	1	BW10104010	100KΩ x 6 1/8W Compo.
G503	1	1	1	BW10104010	100KΩ x 6 1/8W Compo.
G504	1	1	1	BW10473010	47KΩ x 5 1/8W Compo.
G505	1	1	1	BW10473010	47KΩ x 5 1/8W Compo.

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
R501	1	1	1	GD05104140	100KΩ
R502	1	1	1	GD05104140	100KΩ
R503	1	1	1	GD05104140	100KΩ
R504	1	1	1	GD05104140	100KΩ
R505	1	1	1	GD05104140	100KΩ
R506	1	1	1	GD05104140	100KΩ
R507	1	1	1	GD05104140	100KΩ
R508	1	1	1	GD05104140	100KΩ
R509	1	1	1	GD05104140	100KΩ
R510	1	1	1	GD05104140	100KΩ
R511	1	1	1	GD05104140	100KΩ
R512	1	1	1	GD05104140	100KΩ
R513	1	1	1	GD05104140	100KΩ
R514	1	1	1	GD05104140	100KΩ
R515	1	1	1	GD05103140	10KΩ
R516	1	1	1	GD05103140	10KΩ
R517	1	1	1	GD05103140	10KΩ
R518	1	1	1	GD05103140	10KΩ
R519	1	1	1	GD05103140	10KΩ
R520	1	1	1	GD05103140	10KΩ
R521	1	1	1	GD05103140	10KΩ
R522	1	1	1	GD05103140	10KΩ
R523	1	1	1	GD05103140	10KΩ
R524	1	1	1	GD05103140	10KΩ
R525	1	1	1	GD05473140	47KΩ
R526	1	1	1	GD05103140	10KΩ
R527	1	1	1	GD05473140	47KΩ
R528	1	1	1	GD05103140	10KΩ
R529	1	1	1	GD05473140	47KΩ
R530	1	1	1	GD05473140	47KΩ
R531	1	1	1	GD05103140	10KΩ
R532	1	1	1	GD05103140	10KΩ
R533	1	1	1	GD05104140	100KΩ
					P500-SEMICONDUCTORS
IC501	1	1	1	HC10027020	IC MN1455LF
Q502	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q503	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q504	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q505	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q506	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q507	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q508	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q509	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q510	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q511	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q512	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q513	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q514	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q515	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q516	1	1	1	HT107332A0	Transistor 2SA733(O or R)
Q517	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q518	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q519	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q520	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q521	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q522	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q523	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q524	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q525	1	1	1	HT309452A0	Transistor 2SC945(O or R)

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
Q526	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q527	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q528	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q529	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q530	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q531	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q532	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q533	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q534	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q535	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q536	1	1	1	HD20001210	Diode 1S2473
Q537	1	1	1	HD20001210	Diode 1S2473
Q538	1	1	1	HD20001210	Diode 1S2473
Q539	1	1	1	HD20001210	Diode 1S2473
Q540	1	1	1	HD20001210	Diode 1S2473
Q541	1	1	1	HD20001210	Diode 1S2473
Q542	1	1	1	HD20001210	Diode 1S2473
Q543	1	1	1	HD20001210	Diode 1S2473
Q544	1	1	1	HD20001210	Diode 1S2473
Q545	1	1	1	HD20001210	Diode 1S2473
Q546	1	1	1	HD20001210	Diode 1S2473
Q547	1	1	1	HD20001210	Diode 1S2473
Q548	1	1	1	HD20001210	Diode 1S2473
Q549	1	1	1	HD20001210	Diode 1S2473
Q550	1	1	1	HD20001210	Diode 1S2473
Q551	1	1	1	HD20001210	Diode 1S2473
Q552	1	1	1	HD20001210	Diode 1S2473
Q553	1	1	1	HD20001210	Diode 1S2473
Q554	1	1	1	HD20001210	Diode 1S2473
Q556	1	1	1	HD20001210	Diode 1S2473
Q557	1	1	1	HD20001210	Diode 1S2473
Q559	1	1	1	HD20001210	Diode 1S2473
Q560	1	1	1	HD20001210	Diode 1S2473
Q561	1	1	1	HD20001210	Diode 1S2473
Q562	1	1	1	HD20001210	Diode 1S2473
Q563	1	1	1	HD20001210	Diode 1S2473
Q564	1	1	1	HD20001210	Diode 1S2473
Q565	1	1	1	HD20001210	Diode 1S2473
Q566	1	1	1	HD20001210	Diode 1S2473
Q567	1	1	1	HD20001210	Diode 1S2473
Q568	1	1	1	HD20001210	Diode 1S2473
					P500-MISCELLANEOUS
J501	1	1	1	YJ06002270	Jack, (8P)
J502	1	1	1	YJ06002460	Jack, (7P)
J504	1	1	1	YJ06002450	Jack, (6P)
J505	1	1	1	YJ06002460	Jack, (7P)
J506	1	1	1	YJ06002430	Jack, (3P)
J507	1	1	1	YJ06002430	Jack, (3P)
W501	1	1	1	YU05200260	Jumper Lead, (5P)
W502	1	1	1	YU04180260	Jumper Lead, (4P)
W503	1	1	1	YU02220260	Jumper Lead, (2P)

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					P501-PLL/L.P.F. CIRCUIT BOARD
P501	1	1	1	YK103H2750	P.W. Board, PLL/L.P.F.
	1	1	1	ZZ103H2750	P.W. Board Assembly
					P501-CAPACITORS
C511	1	1	1	EA47405030	Elect 0.47μF 50V
C512	1	1	1	DK18333310	Ceramic 0.033μF +80% −20%
C513	1	1	1	DF15223300	Film 0.22μF ±5%
C514	1	1	1	DD15270300	Ceramic 27pF ±5%
C515	1	1	1	CT12000090	Trimming 20pF
C516	1	1	1	DK18333310	Ceramic 0.033μF +80% −20%
C517	1	1	1	EA47405030	Elect 0.47μF 50V
C518	1	1	1	DF15103300	Film 0.01μF ±5%
C519	1	1	1	EC47505010	Elect 4.7μF 50V
C520	1	1	1	EA10703530	Elect 100μF 35V
C521	1	1	1	DF15473300	Film 0.047μF ±5%
					P501-RESISTORS (All Resistors are ±5% and ¼W)
G508	1	1	1	BW10473010	47KΩ x 2 1/8W Compo.
R541	1	1	1	GD05103140	10KΩ
R542	1	1	1	GD05103140	10KΩ
R544	1	1	1	GD05103140	10KΩ
R545	1	1	1	GD05103140	10KΩ
R547	1	1	1	GD05104140	100KΩ
R548	1	1	1	GD05104140	100KΩ
R549	1	1	1	GD05335140	3.3MΩ
R550	1	1	1	GD05221140	220Ω
R551	1	1	1	GD05332140	3.3KΩ
R552	1	1	1	GD05561140	560Ω
R553	1	1	1	GD05102140	1KΩ
R554	1	1	1	GD05561140	560Ω
R555	1	1	1	GD05682140	6.8KΩ
					P501-SEMICONDUCTORS
Q571	1	1	1	HC10028020	IC MN6147
Q572	1	1	1	HC10040010	IC 74LS42
Q573	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q574	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q576	1	1	1	HF20030100	F.E.T. 2SK30(Y)
Q577	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q578	1	1	1	HT309452A0	Transistor 2SC945(O or R)
Q579	1	1	1	HD20001210	Diode 1S2473
					P501-MISCELLANEOUS
J509	1	1	1	YJ06002450	Jack, (6P)
J510	1	1	1	YJ06002390	Jack, (5P)
J511	1	1	1	YJ07000770	Jack, (8P)
W504	1	1	1	YU08260260	Jumper Lead, (8P)
X501	1	1	1	X8108001L2	Crystal 4.5MHz

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					P502-VFL/SIGNAL LED CIRCUIT BOARD
P502	1	1	1	YK103H2710	P.W. Board, VFL/Signal LED
	1	1	1	ZZ103H2710	P.W. Board Assembly
					P502-CAPACITORS
C531	1	1	1	EA10505030	Elect 1μF 50V
C532	1	1	1	EA10602530	Elect 10μF 25V
C533	1	1	1	EA10602530	Elect 10μF 25V
C534	1	1	1	EA10701630	Elect 100μF 16V
C535	1	1	1	DK17103300	Ceramic 0.01μF ±20%
					P502-RESISTORS (All Resistors are ±5% and ¼W)
R561	1	1	1	GD05390140	39Ω
R562	1	1	1	GD05390140	39Ω
R563	1	1	1	GD05391140	390Ω
R564	1	1	1	GD05391140	390Ω
R565	1	1	1	GD05391140	390Ω
R566	1	1	1	GD05153140	15KΩ
R567	1	1	1	GD05333140	33KΩ
R568	1	1	1	GD05562140	5.6KΩ
R569	1	1	1	GD05103140	10KΩ
R570	1	1	1	GD05682140	6.8KΩ
R571	1	1	1	GG05680140	68Ω
					P502-SEMICONDUCTORS
Q581	1	1	1	HC10040030	IC LB1416
Q582	1	1	1	HI10006320	L.E.D. GL-9NG9
Q583	1	1	1	HI10007320	L.E.D. GL-9PR9
Q584	1	1	1	HI10007320	L.E.D. GL-9PR9
Q585	1	1	1	HI10007320	L.E.D. GL-9PR9
Q586	1	1	1	HI10007320	L.E.D. GL-9PR9
Q587	1	1	1	HI10007320	L.E.D. GL-9PR9
Q588	1	1	1	HI10006320	L.E.D. GL-9NG9
Q589	1	1	1	HI10006320	L.E.D. GL-9NG9
					P502-MISCELLANEOUS
J512	1	1	1	YJ06002430	Jack, (3P)
V501	1	1	1	HQ30701410	Display Unit 8-MT-01
W505	1	1	1	YU05300260	Jumper Lead, (5P)
W508	1	1	1	YU02260260	Jumper Lead, (2P)
W507	1	1	1	YU02280260	Jumper Lead, (2P)
					P503-CONTROLER/FIP JUMPER CIRCUIT BOARD
P503	1	1	1	YK103H2740	P.W. Board, Controler/ Fip Jumper
	1	1	1	ZZ103H2740	P.W. Board Assembly
R581	1	1	1	GD05104140	Resistor 100KΩ ±5% ¼W
Q591	1	1	1	HD20001210	Diode 1S2473
Q593	1	1	1	HD20001210	Diode 1S2473
Q594	1	1	1	HD20001210	Diode 1S2473
					P504-CONTROLER/PLL JUMPER CIRCUIT BOARD
P504	1	1	1	YK103H2720	P.W. Board, Controler/ PLL Jumper

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					P700-MAIN AMP. CIRCUIT BOARD
P700	1	1	1	YK103H3410	P.W. Board, Main Amp.
	1	1	1	ZZ104H3410	P.W. Board Assembly
					P700-CAPACITORS
CN13	1	1	1	EA22701030	Elect 220μF 10V
CN14	1	1	1	EA33601030	Elect 33μF 10V
CN16	1	1	1	EA47605030	Elect 47μF 50V
CN17	1	1	1	EA47601030	Elect 47μF 10V
C701	1	1	1	DK16221300	Ceramic 220pF ±10%
C702	1	1	1	DK16221300	Ceramic 220pF ±10%
C703	1	1	1	EA10505030	Elect 1μF 50V
C704	1	1	1	EA10505030	Elect 1μF 50V
C705	1	1	1	EA47505030	Elect 4.7μF 50V
C706	1	1	1	EA47505030	Elect 4.7μF 50V
C707	1	1	1	DK16561300	Ceramic 560pF ±10%
C708	1	1	1	DK16561300	Ceramic 560pF ±10%
C709	1	1	1	DD15200360	Ceramic 20pF ±5%
C710	1	1	1	DD15200360	Ceramic 20pF ±5%
C711	1	1	1	DD15270370	Ceramic 27pF ±5%
C712	1	1	1	DD15270370	Ceramic 27pF ±5%
C715	1	1	1	DD11070370	Ceramic 7pF ±0.5pF
C716	1	1	1	DD11070370	Ceramic 7pF ±0.5pF
C717	1	1	1	EA47606330	Elect 47μF 63V
C718	1	1	1	EA47606330	Elect 47μF 63V
					P700-RESISTORS (All Resistors are ±5% and ¼W)
RN21	1	1	1	GD05224140	220KΩ
RN22	1	1	1	GD05223140	22KΩ
RN23	1	1	1	GD05223140	22KΩ
RN24	1	1	1	GD05273140	27KΩ
RN25	1	1	1	GD05682140	6.8KΩ
RN26	1	1	1	GG05101140	100Ω
RN29	1	1	1	GD05103140	10KΩ
RN30	1	1	1	GD05563140	56KΩ
R701	1	1	1	GD05474140	470KΩ
R702	1	1	1	GD05474140	470KΩ
R703	1	1	1	GD05221140	220Ω
R704	1	1	1	GD05221140	220Ω
R705	1	1	1	GD05273140	27KΩ
R706	1	1	1	GD05273140	27KΩ
R707	1	1	1	RA02230020	22KΩ(B), Trimming
R708	1	1	1	RA02230020	22KΩ(B), Trimming
R709	1	1	1	GD05272140	2.7KΩ
R710	1	1	1	GD05272140	2.7KΩ
R711	1	1	1	GD05683140	68KΩ
R712	1	1	1	GD05683140	68KΩ
R713	1	1	1	GD05471140	470Ω
R714	1	1	1	GD05471140	470Ω
R715	1	1	1	GD05122140	1.2KΩ
R716	1	1	1	GD05122140	1.2KΩ
R717	1	1	1	RA01020360	1KΩ(B), Trimming
R718	1	1	1	RA01020360	1KΩ(B), Trimming
R719	1	1	1	GD05272140	2.7KΩ
R720	1	1	1	GD05272140	2.7KΩ
R721	1	1	1	GG05101140	100Ω
R722	1	1	1	GG05101140	100Ω
R739	1	1	1	GD05100140	10Ω
R740	1	1	1	GD05100140	10Ω
R741	1	1	1	GD05333140	33KΩ
R742	1	1	1	GD05333140	33KΩ

- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					P700-SEMICONDUCTORS
QN19	1	1	1	HC10046060	IC μPC1237H
QN20	1	1	1	HT107332A0	Transistor 2SA733(Q or R)
Q715	1	1	1	HC10032030	IC STK3082
					P700-MISCELLANEOUS
J703	1	1	1	YP06001040	Plug, (3P)
J704	1	1	1	YP06000570	Plug, (3P)
					P701-MAIN AMP. CIRCUIT BOARD
P701	1	1	1	YK103H3420	P.W. Board, Main Amp.
	1	1	1	ZZ104H3420	P.W. Board Assembly
					P701-CAPACITORS
CN01	1	1	1	DF15103350	Film 0.01μF ±5%
CN02	1	1	1	DF15103350	Film 0.01μF ±5%
CN03	1	1	1	DF15103350	Film 0.01μF ±5%
CN04	1	1	1	DF15103350	Film 0.01μF ±5%
C713	1	1	1	DF17473520	Film 0.047μF ±20%
C714	1	1	1	DF17473520	Film 0.047μF ±20%
C719	1	1	1	EA10706330	Elect 100μF 63V
C720	1	1	1	EA10706330	Elect 100μF 63V
C721	1	1	1	EA10706330	Elect 100μF 63V
C722	1	1	1	EA10706330	Elect 100μF 63V
C723	1	1	1	DK16331300	Ceramic 330pF ±10%
C724	1	1	1	DK16331300	Ceramic 330pF ±10%
					P701-RESISTORS (All Resistors are ±5% and ¼W)
RN01	1	1	1	GG05332140	3.3KΩ
RN02	1	1	1	GG05332140	3.3KΩ
RN03	1	1	1	GD05153140	15KΩ
RN04	1	1	1	GD05153140	15KΩ
RN05	1	1	1	GG05332140	3.3KΩ
RN06	1	1	1	GG05332140	3.3KΩ
RN11	1	1	1	GG05101140	100Ω
RN12	1	1	1	GG05101140	100Ω
RN13	1	1	1	GG05101140	100Ω
RN14	1	1	1	GG05101140	100Ω
RN15	1	1	1	GG05151140	150Ω
RN16	1	1	1	GG05151140	150Ω
RN17	1	1	1	GG05151140	150Ω
RN18	1	1	1	GG05151140	150Ω
RN19	1	1	1	GD05683140	68KΩ
RN20	1	1	1	GD05683140	68KΩ
RN31	1	1	1	GD05103140	10KΩ
RN32	1	1	1	GD05103140	10KΩ
R723	1	1	1	GG05100140	10Ω
R724	1	1	1	GG05100140	10Ω
R725	1	1	1	GG05100140	10Ω
R726	1	1	1	GG05100140	10Ω
R727	1	1	1	GO10332050	0.33Ω ±10% 5W
R728	1	1	1	GO10332050	0.33Ω ±10% 5W
R729	1	1	1	GO10332050	0.33Ω ±10% 5W
R730	1	1	1	GO10332050	0.33Ω ±10% 5W
R731	1	1	1	GA05271010	270Ω 1W
R732	1	1	1	GA05271010	270Ω 1W
R733	1	1	1	GA05100030	10Ω 3W
R734	1	1	1	GA05100030	10Ω 3W
R735	1	1	1	RC10022120	2.2Ω ±10% ½W
R736	1	1	1	RC10022120	2.2Ω ±10% ½W
R737	1	1	1	GA05331010	330Ω 1W
R738	1	1	1	GA05331010	330Ω 1W

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
QN13 ~ QN16	4	4	4	GG05271140	270Ω
					P701-SEMICONDUCTORS
QN01	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QN02	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QN03	1	1	1	HT107332A0	Transistor 2SA733(Q or R)
QN04	1	1	1	HT107332A0	Transistor 2SA733(Q or R)
QN05	1	1	1	HD20001210	Diode 1S2473
QN06	1	1	1	HD20001210	Diode 1S2473
QN07	1	1	1	HD20001210	Diode 1S2473
QN08	1	1	1	HD20001210	Diode 1S2473
QN09	1	1	1	HD20003210	Diode 1S2471
QN10	1	1	1	HD20003210	Diode 1S2471
QN11	1	1	1	HD20003210	Diode 1S2471
QN12	1	1	1	HD20003210	Diode 1S2471
QN17	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QN18	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q701	1	1	1	HT323442A0	Transistor 2SC2344(D or E)
Q702	1	1	1	HT323442A0	Transistor 2SC2344(D or E)
Q703	1	1	1	HT110112A0	Transistor 2SA1011(D or E)
Q704	1	1	1	HT110112A0	Transistor 2SA1011(D or E)
Q705	1	1	1	HT32838280	Transistor 2SC2838(O or Y)
Q706	1	1	1	HT32838280	Transistor 2SC2838(O or Y)
Q707	1	1	1	HT111872B0	Transistor 2SA1187(O or Y)
Q708	1	1	1	HT111872B0	Transistor 2SA1187(O or Y)
Q709	1	1	1	HD20015030	Diode DS135D
Q710	1	1	1	HD20015030	Diode DS135D
Q711	1	1	1	HD20015030	Diode DS135D
Q712	1	1	1	HD20015030	Diode DS135D
Q713	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q714	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
					P701-MISCELLANEOUS
J701	1	1	1	YP06001060	Plug, (7P)
J702	1	1	1	YP06001060	Plug, (7P)
L701	1	1	1	LL23905120	Choke Coil
L702	1	1	1	LL23905120	Choke Coil
					P800-POWER SUPPLY CIRCUIT BOARD
P800	1	1	1	YK104H1910	P.W. Board, Power Supply
		1		ZZ104H1910	P.W. Board Assembly
			1	ZZ104H8910	P.W. Board Assembly
					P800-CAPACITORS
⚠ C801	1	1	1	DK18103560	Ceramic 0.01μF
⚠ C803	1	1	1	EB10906320	Elect 10000μF 63V
⚠ C804	1	1	1	EB10906320	Elect 10000μF 63V
C805	1	1	1	EA47505030	Elect 4.7μF 50V
C806	1	1	1	EA10606330	Elect 10μF 63V
C807	1	1	1	EA10606330	Elect 10μF 63V
C808	1	1	1	EA22605030	Elect 22μF 50V
C809	1	1	1	EA22605030	Elect 22μF 50V
C810	1	1	1	EA10702530	Elect 100μF 25V
C811	1	1	1	EA10702530	Elect 100μF 25V
C812	1	1	1	EA10702530	Elect 100μF 25V
C813	1	1	1	EA10702530	Elect 100μF 25V
C814	1	1	1	EA47603530	Elect 47μF 35V
C815	1	1	1	EA22705030	Elect 220μF 50V
C816	1	1	1	EA22705030	Elect 220μF 50V

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
C817	1	1	1	EA10505030	Elect 1μF 50V
C818	1	1	1	EA10701030	Elect 100μF 10V
C819	1	1	1	EA10701030	Elect 100μF 10V
C820	1	1	1	EA22601630	Elect 22μF 16V
C821	1	1	1	EA10505030	Elect 1μF 50V
C822	1	1	1	EA33705030	Elect 330μF 50V
C823	1	1	1	EA10701030	Elect 100μF 10V
C824	1	1	1	EA47603530	Elect 47μF 35V
C825	1	1	1	EA10505030	Elect 1μF 50V
⚠ C826	1	1	1	DK18103560	Ceramic 0.01μF
⚠ C827	1	1	1	DK18103560	Ceramic 0.01μF
⚠ C828	1	1	1	DK18103560	Ceramic 0.01μF
⚠ C829	1	1	1	DK18103560	Ceramic 0.01μF
					P800-RESISTORS
					(All Resistors are ±5% and ¼W)
R801	1	1	1	GD05273140	27KΩ
R802	1	1	1	GP05131050	130Ω 5W
R803	1	1	1	GP05331030	330Ω 3W
R804	1	1	1	GG05102140	1KΩ
R805	1	1	1	GG05102140	1KΩ
R806	1	1	1	GD05221140	220Ω
R807	1	1	1	GD05681140	680Ω
R808	1	1	1	GD05473140	47KΩ
R809	1	1	1	GA05271010	270Ω
R810	1	1	1	GD05103140	10KΩ
R811	1	1	1	GD05103140	10KΩ
R812	1	1	1	GD05563140	56KΩ
R813	1	1	1	GG05152140	1.5KΩ
R814	1	1	1	GD05104140	100KΩ
R815	1			GD05220140	22Ω
R815		1	1	GD05100140	10Ω
R816	1	1	1	GD05473140	47KΩ
R817	1	1	1	GD05183140	18KΩ
R818	1	1	1	GD05103140	10KΩ
R819	1	1	1	GG05391120	390Ω ½W
R820	1	1	1	GA05331010	330Ω 1W
R821	1	1	1	GD05822140	8.2KΩ
					P800-SEMICONDUCTORS
⚠ Q801	1	1	1	HD20011290	Diode S3V20
⚠ Q802	1	1	1	HD20011290	Diode S3V20
⚠ Q803	1	1	1	HD20011290	Diode S3V20
⚠ Q804	1	1	1	HD20011290	Diode S3V20
Q805	1	1	1	HD20001210	Diode 1S2473
Q806	1	1	1	HT4031310	Transistor 2SD313(E)
Q807	1	1	1	HT2050710	Transistor 2SB507(E)
⚠ Q808	1	1	1	HD20018030	Diode DBA-10
Q809	1	1	1	HD20001210	Diode 1S2473
Q810	1	1	1	HD30065090	Zener BZ-280
Q811	1	1	1	HD30053090	Zener XZ-068
Q812	1	1	1	HD40313100	Transistor 2SD313(E)
Q813	1	1	1	HD30009080	Zener RD-6.2EB
Q814	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
Q815	1	1	1	HD20015030	Diode DS135D
Q816	1	1	1	HD20001210	Diode 1S2473
Q817	1	1	1	HD30065090	Zener BZ-280
Q818	1	1	1	HT107332A0	Transistor 2SA733(Q or R)
Q819	1	1	1	HD20001210	Diode 1S2473
Q820	1	1	1	HT309452A0	Transistor 2SC945(Q or R)

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
Q821	1	1	1	HD30014060	Zener RD22EB2
Q822	1	1	1	HD30014060	Zener RD22EB2
Q823	1	1	1	HD20001210	Diode 1S2473
					P800-MISCELLANEOUS
J822	1	1	1	YJ06002440	Jack (4P)
J824	1	1	1	YJ06002390	Jack (5P)
					PC50-SCAN STEP SWITCH CIRCUIT BOARD
PC50	1	1	1	YK103H1760	P.W. Board, Scan Step Switch
	1	1	1	ZZ103H1760	P.W. Board Assembly
SC51	1	1	1	SS02030130	Slide Switch, Scan Step
WC56	1	1	1	YU03500260	Jumper Lead, (3P)
					PE00-TONE AMP. CIRCUIT BOARD
PE00	1	1	1	YK104H1920	P.W. Board, Tone Amp.
	1	1	1	ZZ104H1920	P.W. Board Assembly
					PE00-CAPACITORS
CE01	1	1	1	EA10505030	Elect 1μF 50V
CE02	1	1	1	EA10505030	Elect 1μF 50V
CE03	1	1	1	DK16391300	Ceramic 390pF ±10%
CE04	1	1	1	DK16391300	Ceramic 390pF ±10%
CE05	1	1	1	EA10602530	Elect 10μF 25V
CE06	1	1	1	EA10602530	Elect 10μF 25V
CE07	1	1	1	EA47505030	Elect 4.7μF 50V
CE08	1	1	1	EA47505030	Elect 4.7μF 50V
CE09	1	1	1	EA10701030	Elect 100μF 10V
CE10	1	1	1	EA10701030	Elect 100μF 10V
CE11	1	1	1	EA10701030	Elect 100μF 10V
CE12	1	1	1	EA10701030	Elect 100μF 10V
CE43	1	1	1	EA10702530	Elect 100μF 10V
CE44	1	1	1	EA10702530	Elect 100μF 10V
					PE00-RESISTORS
					(All Resistors are ±5% and ¼W)
RE01	1	1	1	GD05221140	220Ω
RE02	1	1	1	GD05221140	220Ω
RE03	1	1	1	GD05823140	82KΩ
RE04	1	1	1	GD05823140	82KΩ
RE05	1	1	1	GD05561140	560Ω
RE06	1	1	1	GD05561140	560Ω
RE07	1	1	1	GD05392140	3.9KΩ
RE08	1	1	1	GD05392140	3.9KΩ
RE09	1	1	1	GD05104140	100KΩ
RE10	1	1	1	GD05104140	100KΩ
RE11	1	1	1	GD05391140	390Ω
RE12	1	1	1	GD05391140	390Ω
RE13	1	1	1	GD05223140	22KΩ
RE14	1	1	1	GD05223140	22KΩ
RE15	1	1	1	GD05221140	220Ω
RE16	1	1	1	GD05221140	220Ω
RE17	1	1	1	GD05392140	3.9KΩ
RE18	1	1	1	GD05392140	3.9KΩ
RE19	1	1	1	GD05332140	3.3KΩ
RE20	1	1	1	GD05332140	3.3KΩ
RE66	1	1	1	GG05101140	100Ω
RE67	1	1	1	GG05101140	100Ω
RE69	1	1	1	GA05180010	18Ω

- (U): for U.S.A.
- (E): for Europe
- (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PE00-ICs
QE01	1	1	1	HC10013370	IC TL4558PB
QE02	1	1	1	HC10013370	IC TL4558PB
					PE00-JACK
JE01	1	1	1	YJ06002390	Jack, (5P)
JE02	1	1	1	YJ06002390	Jack, (5P)
					PE01-CONNECTION CIRCUIT BOARD
PE01	1	1	1	YK104H1930	P.W. Board, Connection
	1	1	1	ZZ104H1930	P.W. Board Assembly
					PE01-CAPACITORS
CE45	1	1	1	EA10701630	Elect 100μF 16V
CE46	1	1	1	EA10701630	Elect 100μF 16V
					PE01-RESISTOR
RE68	1	1	1	GD05272140	2.7KΩ ±5% ¼W
					PE01-SEMICONDUCTORS
QE13	1	1	1	HD30027090	Zener WZ-140
QE14	1	1	1	HT403131Q0	Transistor 2SD313V(E)
					PE02-TONE AMP. CIRCUIT BOARD
PE02	1	1	1	YK104H1940	P.W. Board, Tone Amp.
	1	1	1	ZZ104H1940	P.W. Board Assembly
					PE02-CAPACITORS
CE13	1	1	1	EA22505030	Elect 2.2μF 50V
CE14	1	1	1	EA22505030	Elect 2.2μF 50V
CE15	1	1	1	EA47405030	Elect 0.47μF 50V
CE16	1	1	1	EA47405030	Elect 0.47μF 50V
CE17	1	1	1	DF17154300	Film 0.15μF ±20%
CE18	1	1	1	DF17154300	Film 0.15μF ±20%
CE19	1	1	1	DF17333300	Film 0.033μF ±20%
CE20	1	1	1	DF17333300	Film 0.033μF ±20%
CE21	1	1	1	DF17822300	Film 8200pF ±20%
CE22	1	1	1	DF17822300	Film 8200pF ±20%
CE23	1	1	1	EA10405030	Elect 0.1μF 50V
CE24	1	1	1	EA10405030	Elect 0.1μF 50V
CE25	1	1	1	DF17223300	Film 0.022μF ±20%
CE26	1	1	1	DF17223300	Film 0.022μF ±20%
CE27	1	1	1	DF17562300	Film 5600pF ±20%
CE28	1	1	1	DF17562300	Film 5600pF ±20%
CE29	1	1	1	DF17152300	Film 1500pF ±20%
CE30	1	1	1	DF17152300	Film 1500pF ±20%
CE31	1	1	1	DK16391300	Ceramic 390pF ±10%
CE32	1	1	1	DK16391300	Ceramic 390pF ±10%
CE33	1	1	1	DD15220370	Ceramic 22pF ±5%
CE34	1	1	1	DD15220370	Ceramic 22pF ±5%
CE35	1	1	1	DD15220370	Ceramic 22pF ±5%
CE36	1	1	1	DD15220370	Ceramic 22pF ±5%
CE37	1	1	1	DD15220370	Ceramic 22pF ±5%
CE38	1	1	1	DD15220370	Ceramic 22pF ±5%
CE39	1	1	1	DD15220370	Ceramic 22pF ±5%
CE40	1	1	1	DD15220370	Ceramic 22pF ±5%
CE41	1	1	1	DD15220370	Ceramic 22pF ±5%
CE42	1	1	1	DD15220370	Ceramic 22pF ±5%

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PE02-RESISTORS (All Resistors are ±5% and ¼W)
RE21	1	1	1	GD05101140	100Ω
RE22	1	1	1	GD05101140	100Ω
RE23	1	1	1	GD05101140	100Ω
RE24	1	1	1	GD05101140	100Ω
RE25	1	1	1	GD05101140	100Ω
RE26	1	1	1	GD05101140	100Ω
RE27	1	1	1	GD05101140	100Ω
RE28	1	1	1	GD05101140	100Ω
RE29	1	1	1	GD05101140	100Ω
RE30	1	1	1	GD05101140	100Ω
RE31	1	1	1	GD05473140	47KΩ
RE32	1	1	1	GD05473140	47KΩ
RE33	1	1	1	GD05473140	47KΩ
RE34	1	1	1	GD05473140	47KΩ
RE35	1	1	1	GD05473140	47KΩ
RE36	1	1	1	GD05473140	47KΩ
RE37	1	1	1	GD05473140	47KΩ
RE38	1	1	1	GD05473140	47KΩ
RE39	1	1	1	GD05473140	47KΩ
RE40	1	1	1	GD05473140	47KΩ
RE41	1	1	1	GD05472140	4.7KΩ
RE42	1	1	1	GD05472140	4.7KΩ
RE43	1	1	1	GD05472140	4.7KΩ
RE44	1	1	1	GD05472140	4.7KΩ
RE45	1	1	1	GD05472140	4.7KΩ
RE46	1	1	1	GD05472140	4.7KΩ
RE47	1	1	1	GD05472140	4.7KΩ
RE48	1	1	1	GD05472140	4.7KΩ
RE49	1	1	1	GD05472140	4.7KΩ
RE50	1	1	1	GD05472140	4.7KΩ
RE51	1	1	1	GD05102140	1KΩ
RE52	1	1	1	GD05102140	1KΩ
RE53	1	1	1	GD05102140	1KΩ
RE54	1	1	1	GD05102140	1KΩ
RE55	1	1	1	GD05102140	1KΩ
RE56	1	1	1	GD05102140	1KΩ
RE57	1	1	1	GD05102140	1KΩ
RE58	1	1	1	GD05102140	1KΩ
RE59	1	1	1	GD05102140	1KΩ
RE60	1	1	1	GD05102140	1KΩ
					PE02-SEMICONDUCTORS
QE03	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE04	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE05	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE06	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE07	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE08	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE09	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE10	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE11	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
QE12	1	1	1	HT323622B0	Transistor 2SC2362(G or H)
					PE02-MISCELLANEOUS
WE02	1	1	1	YU08100260	Jumper Lead, (8P)
WE03	1	1	1	YU08100260	Jumper Lead, (8P)

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PE03-TONE VOLUME CIRCUIT BOARD
PE03	1	1	1	YK104H1950	P.W. Board, Tone Volume
	1	1	1	ZZ104H1950	P.W. Board Assembly
					PE03-RESISTORS
RE61	1	1	1	RS05030380	50KΩ(W), Variable
RE62	1	1	1	RS05030380	50KΩ(W), Variable
RE63	1	1	1	RS05030380	50KΩ(W), Variable
RE64	1	1	1	RS05030380	50KΩ(W), Variable
RE65	1	1	1	RS05030380	50KΩ(W), Variable
					PG00-VOL/VALANCE CIRCUIT BOARD
PG00	1	1	1	YK104H1960	P.W. Board, Vol/Balance
	1	1	1	ZZ104H1960	P.W. Board Assembly
RG01	1	1	1	RM01040270	Variable Resistor 100KΩ(B)
RG02	1	1	1	RK02040120	Variable Resistor 200KΩ(W)
WE01	1	1	1	YU05480260	Jumper Lead, (5P)
					PJ01-TAPE MONITOR SWITCH CIRCUIT BOARD
PJ01	1	1	1	YH104H0210	P.W. Board, Tape Monitor Switch
	1	1	1	ZZ104H0210	P.W. Board Assembly
CJ01	1	1	1	DK17103300	Ceramic Cap. 0.01μF ±20%
JJ01	1			YT02040350	Terminal, Tape 1
JJ01		1	1	YT02040340	Terminal, Tape 1
JJ02	1			YT02040350	Terminal, Tape 2
JJ02		1	1	YT02040340	Terminal, Tape 2
SJ01	1	1	1	SS06060010	Slide Switch
SJ02	1	1	1	SR00050100	Rotary Switch
WJ01	1	1	1	YU07160260	Jumper Lead, (7P)
					PK01-EQ OUT CIRCUIT BOARD
PK01	1	1	1	YK104H1990	P.W. Board, EQ out
	1	1	1	ZZ104H1990	P.W. Board Assembly
RK01	1	1	1	GD05103140	Resistor 10KΩ ±5% ¼W
RK02	1	1	1	GD05103140	Resistor 10KΩ ±5% ¼W
RK03	1	1	1	GD05681140	Resistor 680Ω ±5% ¼W
RK04	1	1	1	GD05681140	Resistor 680Ω ±5% ¼W
JK01	1	1	1	YJ01001340	Jack, EQ Out

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PL00-SPEAKER PROTECTOR CIRCUIT BOARD
PL00	1	1	1	YK104H1970	P.W. Board, Speaker Protector
	1	1	1	ZZ104H1970	P.W. Board Assembly
RL01	1	1	1	GG05152120	Resistor 1.5KΩ ±5% ½W
RL02	1	1	1	GG05152120	Resistor 1.5KΩ ±5% ½W
QL01	1	1	1	HD20015030	Diode DS135D
QL02	1	1	1	HD20015030	Diode DS135D
JL01	1	1	1	YT03080010	Terminal, Speaker
LL01	1	1	1	LY20240190	Relay, System 1
LL02	1	1	1	LY20240190	Relay, System 2
					PQ00-AC POWER RELAY CIRCUIT BOARD
PQ00	1	1	1	YK104H1980	P.W. Board, AC Power Relay
	1			ZZ104H1980	P.W. Board Assembly
		1		ZZ104H8980	P.W. Board Assembly
			1	ZZ104H9980	P.W. Board Assembly
					PQ00-CAPACITORS
CQ01	1			DK18103530	Ceramic 0.01μF 125V
CQ01		1		DK18103840	Ceramic 0.01μF 400V
CQ01			1	DK18103850	Ceramic 0.01μF 250V
CQ02		1		DK18103840	Ceramic 0.01μF 400V
CQ02			1	DK18103850	Ceramic 0.01μF 250V
					PQ00-SEMICONDUCTOR
QQ01	1	1	1	HD20015030	Diode DS135D
					PQ00-MISCELLANEOUS
⚠ LQ01	1	1	1	LY10240050	Relay
LQ02		1	1	LY10240050	Relay
					PS00-FILTER/LOUDNESS CIRCUIT BOARD
PS00	1	1	1	YK103H3430	P.W. Board, Filter/Loudness
	1	1	1	ZZ103H3430	P.W. Board Assembly
					PS00-CAPACITORS
CS01	1	1	1	DF15473300	Film 0.047μF ±5%
CS02	1	1	1	DF15473300	Film 0.047μF ±5%
CS03	1	1	1	DK16681300	Ceramic 680pF ±10%
CS04	1	1	1	DK16681300	Ceramic 680pF ±10%
CS05	1	1	1	DF15562300	Film 5600pF ±5%
CS06	1	1	1	DF15562300	Film 5600pF ±5%
CS07	1	1	1	EA10405030	Elect 0.1μF 50V
CS08	1	1	1	EA10405030	Elect 0.1μF 50V
CS09	1	1	1	EA10405030	Elect 0.01μF

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PS00-RESISTORS (All Resistors are ±5% and ¼W)
RS01	1	1	1	GD05822140	8.2KΩ
RS02	1	1	1	GD05822140	8.2KΩ
RS03	1	1	1	GD05183140	18KΩ
RS04	1	1	1	GD05183140	18KΩ
RS05	1	1	1	GD05222140	2.2KΩ
RS06	1	1	1	GD05222140	2.2KΩ
RS07	1	1	1	GD05222140	2.2KΩ
RS08	1	1	1	GD05222140	2.2KΩ
RS09	1	1	1	GD05564140	560KΩ
RS10	1	1	1	GD05564140	560KΩ
RS13	1	1	1	GD05332140	3.3KΩ
RS14	1	1	1	GD05332140	3.3KΩ
RS15	1	1	1	GD05123140	12KΩ
RS21	1	1	1	GD05823140	82KΩ
RS22	1	1	1	GD05823140	82KΩ
					PS00-MISCELLANEOUS
JS01	1	1	1	YJ06002430	Jack, (3P)
JS02	1	1	1	YJ06002430	Jack, (3P)
SS01	1	1	1	SP02090010	Push Switch, Speaker/Filter
WS01	1	1	1	YU05280260	Jumper Lead, (5P)
WS04	1	1	1	YU05220260	Jumper Lead, (5P)
					PS01-SPEAKER SWITCH CIRCUIT BOARD
PS01	1	1	1	YK103H3440	P.W. Board, Speaker Switch
	1	1	1	ZZ103H3440	P.W. Board Assembly
					PS01-RESISTORS
RS16	1	1	1	GD05104140	100KΩ ±5% ¼W
RS17	1	1	1	GG05392120	3.9KΩ ±5% ½W
RS18	1	1	1	GD05104140	100KΩ ±5% ¼W
RS19	1	1	1	GG05222120	2.2KΩ ±5% ½W
RS20	1	1	1	GD05104140	100KΩ ±5% ¼W
					PS01-SEMICONDUCTORS
QS01	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QS02	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
					PS01-JACK
JS03	1	1	1	YJ06002430	Jack, (3P)
					PS50-TIMER SWITCH CIRCUIT BOARD
PS50	1	1	1	YK103H1740	P.W. Board, Timer Switch
	1	1	1	ZZ103H1740	P.W. Board Assembly
					PS50-SEMICONDUCTORS
QS51	1	1	1	HD20001210	Diode 1S2473
QS52	1	1	1	HD20001210	Diode 1S2473
QS53	1	1	1	HD20001210	Diode 1S2473
QS54	1	1	1	HD20011050	Diode 1S1555
QS55	1	1	1	HD20011050	Diode 1S1555
QS56	1	1	1	HD20011050	Diode 1S1555

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PS50-MISCELLANEOUS
SS51	1	1	1	SR01060010	Rotary Switch, Timer
WS55	1	1	1	YU07240260	Jumper Lead, (7P)
					PT00-KEY BOARD SWITCH CIRCUIT BOARD
PT00	1	1	1	YK103H2760	P.W. Board, Key Board Switch
	1	1	1	ZZ103H2760	P.W. Board Assembly
RT01	1	1	1	GD05681140	Resistors 680Ω ±5% ¼W
					PT00-SEMICONDUCTORS
QT01	1	1	1	HI10003320	L.E.D. GL-2PR1
QT02	1	1	1	HI10003320	L.E.D. GL-2PR1
QT03	1	1	1	HI10003320	L.E.D. GL-2PR1
QT04	1	1	1	HI10003320	L.E.D. GL-2PR1
QT05	1	1	1	HI10003320	L.E.D. GL-2PR1
QT06	1	1	1	HI10003320	L.E.D. GL-2PR1
QT07	1	1	1	HI10003320	L.E.D. GL-2PR1
QT08	1	1	1	HI10003320	L.E.D. GL-2PR1
					PT00-SWITCHES
ST01	1	1	1	SP01010470	Push Switch, Memory 1
ST02	1	1	1	SP01010470	Push Switch, Memory 2
ST03	1	1	1	SP01010470	Push Switch, Memory 3
ST04	1	1	1	SP01010470	Push Switch, Memory 4
ST05	1	1	1	SP01010470	Push Switch, Memory 5
ST06	1	1	1	SP01010470	Push Switch, Memory 6
ST07	1	1	1	SP01010470	Push Switch, Memory 7
ST08	1	1	1	SP01010470	Push Switch, Memory 8
ST09	1	1	1	SP01010470	Push Switch, Time 9
ST10	1	1	1	SP01010470	Push Switch, Time 0
ST11	1	1	1	SP01010470	Push Switch, Memory
ST12	1	1	1	SP01010470	Push Switch, Up
ST13	1	1	1	SP01010470	Push Switch, Down
WT01	1	1	1	YU08180260	Jumper Lead, (8P)
WT02	1	1	1	YU07200260	Jumper Lead, (7P)
WT11	1	1	1	YB01300040	Connective Cord, (8P)
					PT50-POWER OFF SWITCH CIRCUIT BOARD
PT50	1	1	1	YK103H2770	P.W. Board, Power OFF Switch
	1	1	1	ZZ103H2770	P.W. Board Assembly
ST51	1	1	1	SP01010470	Push Switch, Power OFF
WT57	1	1	1	YU02400260	Jumper Lead, (2P)

• (U): for U.S.A.
• (E): for Europe
• (P): for PX

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PU00-FUNCTION SWITCH CIRCUIT BOARD
PU00	1	1	1	YK103H1730	P.W. Board, Function Switch
	1	1	1	ZZ103H1730	P.W. Board Assembly
RU01	1	1	1	GD05331140	Resistor 330Ω ±5% ¼W
					PU00-SEMICONDUCTORS
QU01	1	1	1	HI10012320	L.E.D. Aux
QU02	1	1	1	HI10012320	L.E.D. Phono
QU04	1	1	1	HI10012320	L.E.D. AM
QU05	1	1	1	HI10012320	L.E.D. FM
					PU00-MISCELLANEOUS
SU01	1	1	1	SP01010480	Push Switch, Aux
SU02	1	1	1	SP01010480	Push Switch, Phone
SU04	1	1	1	SP01010480	Push Switch, AM
SU05	1	1	1	SP01010480	Push Switch, FM
WU09	1	1	1	YU06160260	Jumper Lead, (6P)
WU10	1	1	1	YU05160260	Jumper Lead, (5P)

REF. DESIG.	Q'TY U	E	P	PART NO.	DESCRIPTION
					PU50-C/F DISPLAY CIRCUIT BOARD
PU50	1	1	1	YK103H1720	P.W. Board, C/F Display
	1	1	1	ZZ103H1720	P.W. Board Assembly
RU51	1	1	1	GD05272140	Resistor 2.7KΩ ±5% ¼W
QU51	1	1	1	HD20001210	Diode 1S2473
SU51	1	1	1	SP02040100	Push Switch
WU54	1	1	1	YU06200260	Jumper Lead, (6P)
WU62	1	1	1	YU02180260	Jumper Lead, (2P)
CU51	1	1	1	DK17103300	Ceramic Cap. 0.01μF
					PW01-HEAD PHONE CIRCUIT BOARD
PW01	1	1	1	YK103H1770	P.W. Board, Head Phone
	1	1	1	ZZ103H1770	P.W. Board Assembly
JW01	1	1	1	YJ01001340	Jack, Head Phone

(W01-99)	**Assembly and Wiring**
(T01-99)	**Adjustment**
(X01-00)	**Correction**

9. TECHNICAL SPECIFICATIONS

AMPLIFIER STAGE

RATED OUTPUT PER CHANNEL

4 OHMS DIN **95W**
4 OHMS RMS **88W**
8 OHMS DIN **75W**
8 OHMS RMS **70W**
TOTAL HARMONIC DISTORTION AT RMS 8 OHMS **0.03%**
DAMPING FACTOR 8 OHMS (1 kHz) **50**

PREAMP STAGE

Frequency Response
Phono: (RIAA) ..... ±1.0 dB (20 – 20 kHz)
Aux: (±2 dB) ..... 16 Hz – 30 kHz
Signal/Noise Ratio
Phono: 7.75 mV 20V out ..... 81 dB
Aux: VOL MAX 20V out ..... 96 dB
Input Sensitivity/Imp.
Phono ..... 2.7 mV/47 kΩ
Auxiliary ..... 160 mV/27 kΩ

FM STAGE (87.5 – 108 MHz)

Sensitivity
DIN Mono (S/N 26 dB, 75Ω) ..... 1.0 μV
DIN Stereo (S/N 46 dB, 75Ω) ..... 20 μV
Selectivity/Adjacent Channel 98 MHz ..... 60 dB
Signal/Noise Ratio 98 MHz
Unweighted: Mono ..... 67 dB
Stereo ..... 63 dB
Weighted: Mono ..... 75 dB
Stereo ..... 70 dB

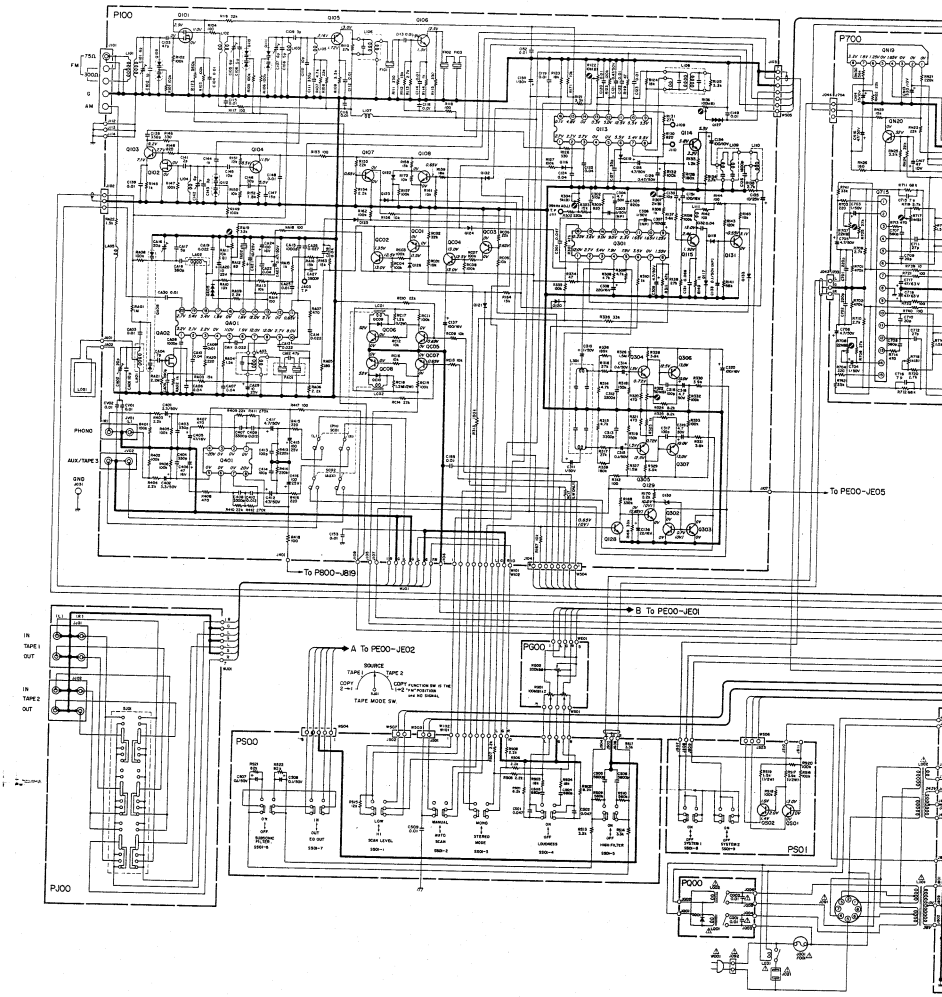
MW STAGE (522 – 1611, 530 – 1620 kHz)

Sensitivity (20 dB S/N 30% mod., 1 MHz) ..... 30 μV
Selectivity ..... 30 dB

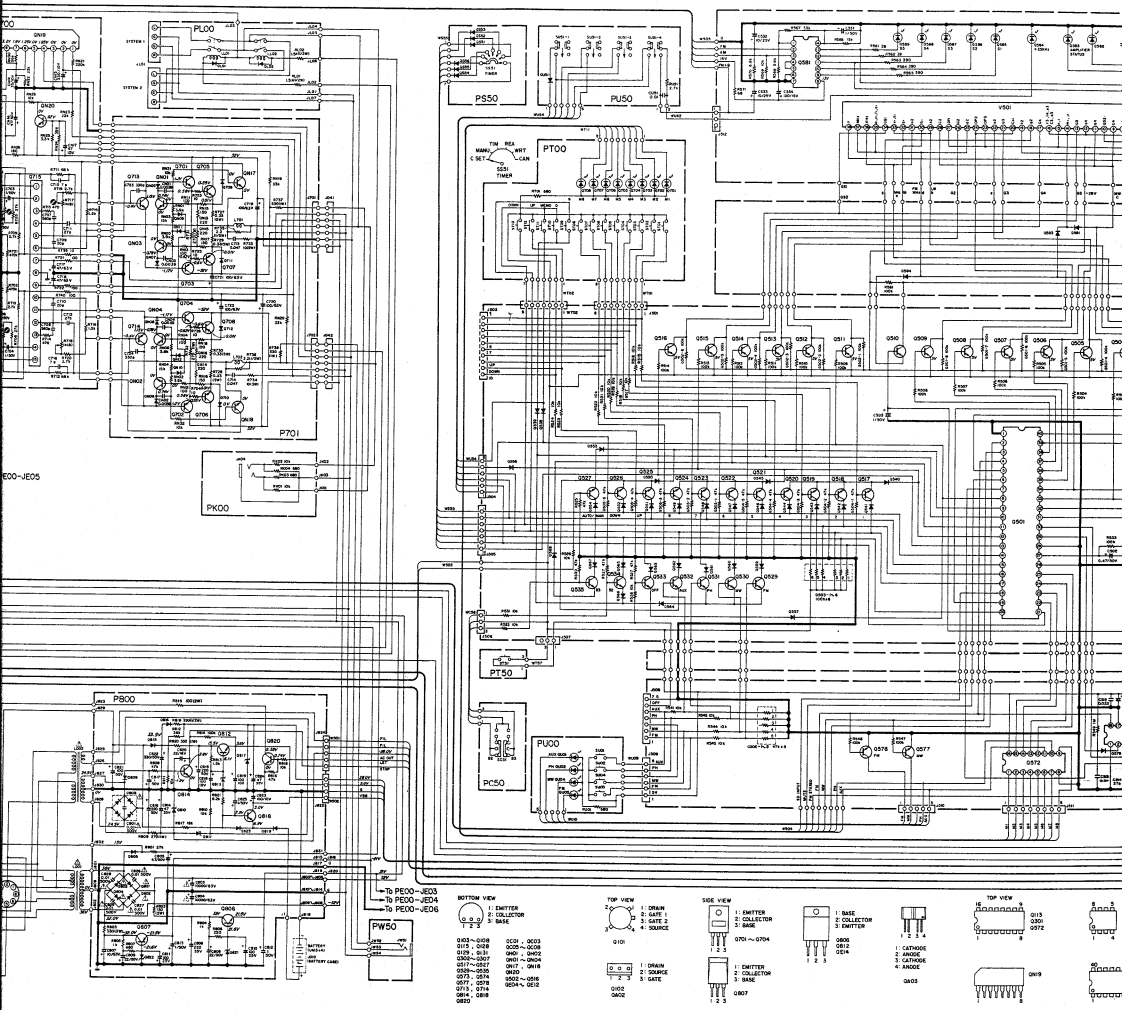
GENERAL

Power Requirements ..... 220V AC, 50 Hz
(E and N versions are featuring an external voltage selector for use on other voltages.
Other versions can be converted by a qualified technician to operate on 240V.)
Power Consumption at Rated Output, Both Channels Operating 250W
Dimensions
Panel Width ..... 416 mm
Panel Height ..... 117.5 mm
Depth ..... 388 mm
Net Weight ..... 11.0 kg

10. SCHEMATIC DIAGRAM

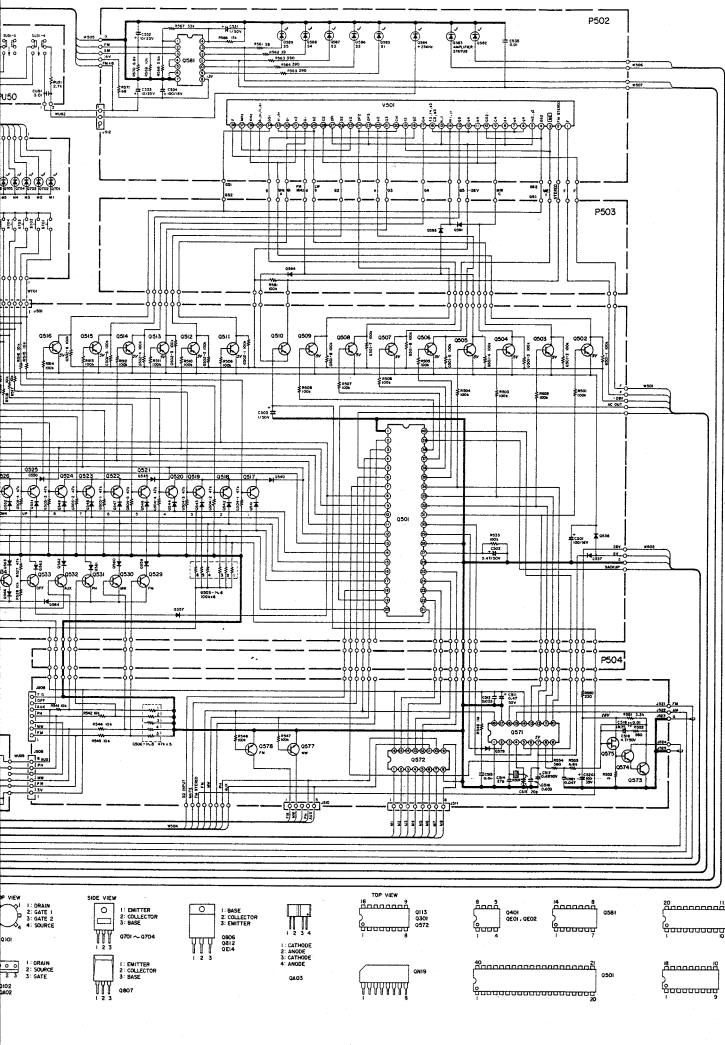


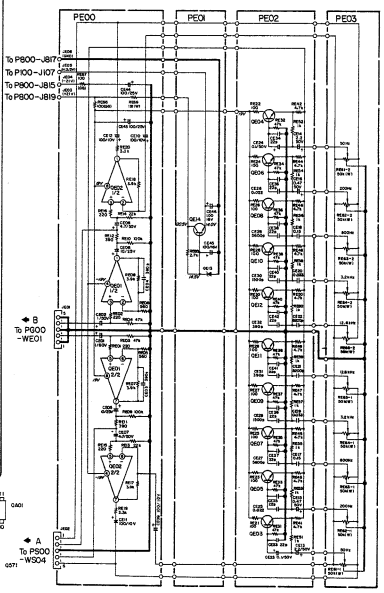
Note on safety: The parts marked with ⚠ are important parts on the safety. Please use the parts having the designated parts number without fail.



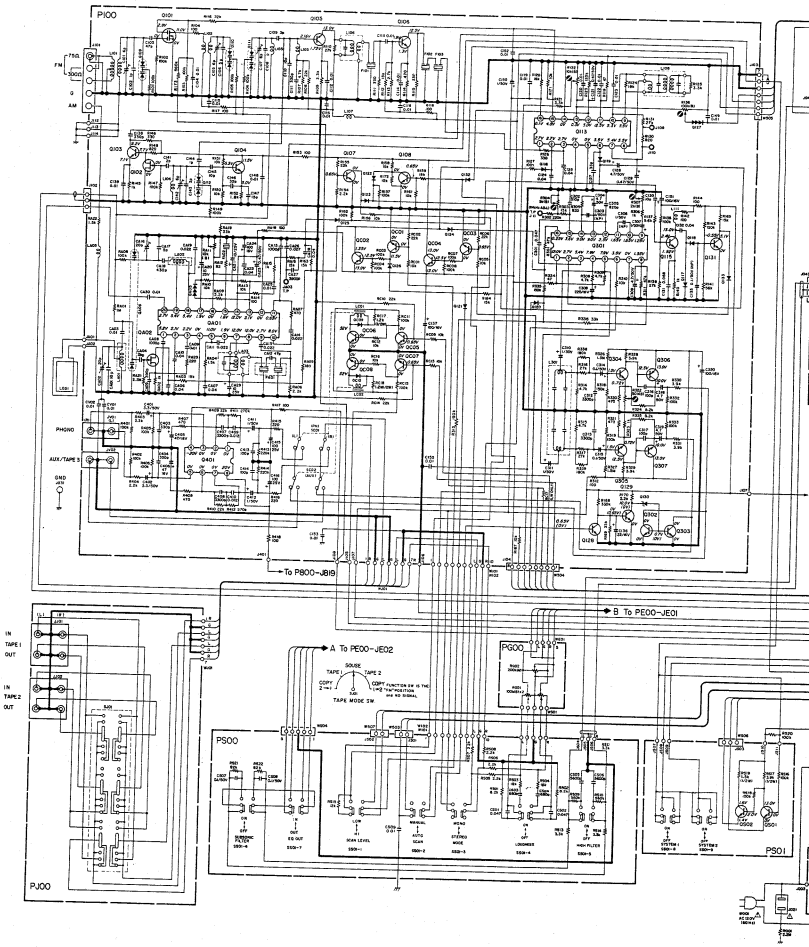
Components and wiring are subject to change for modification w

Model SR8100DC(N)

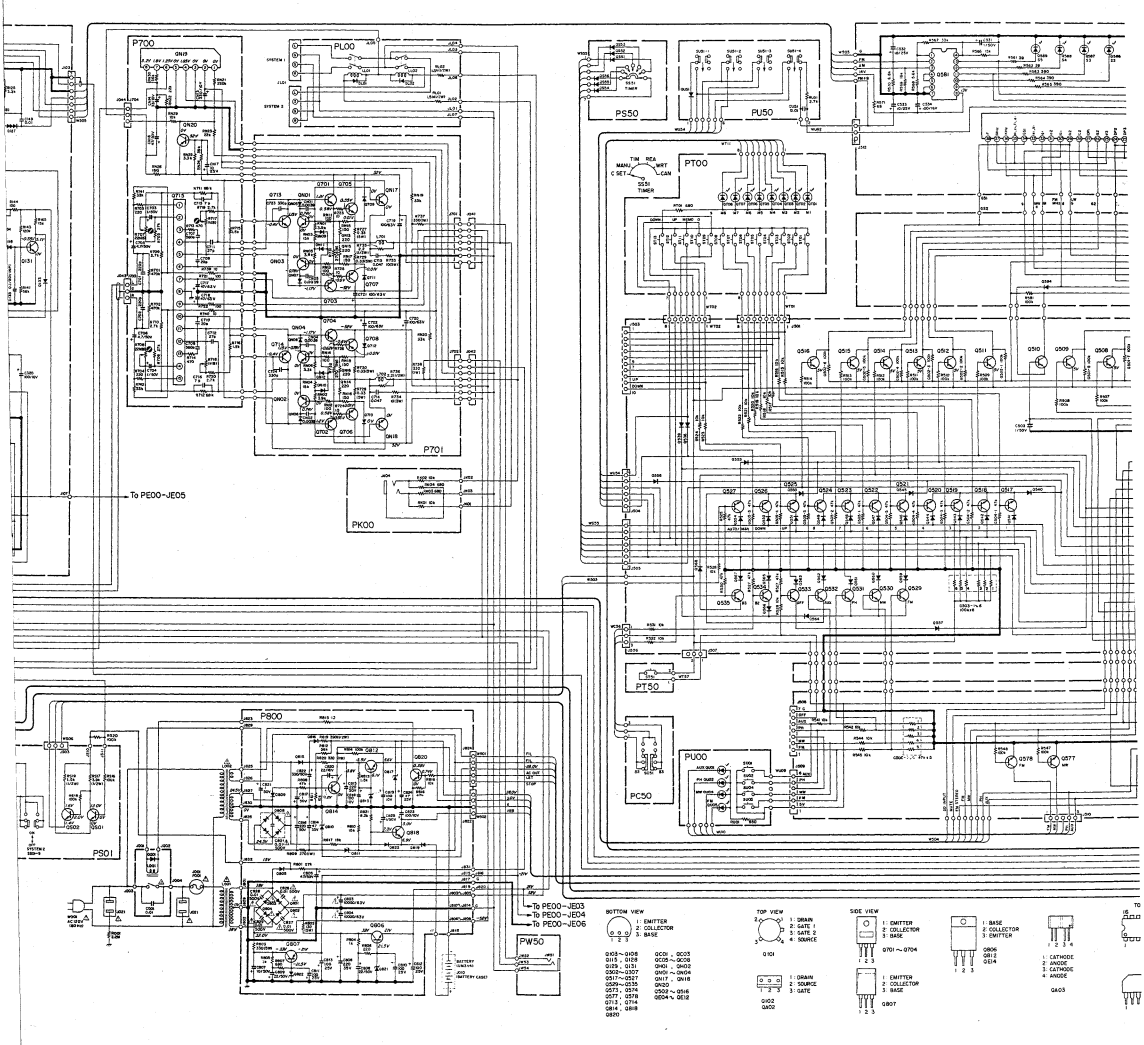




Components and wiring are subject to change for modification without notice.

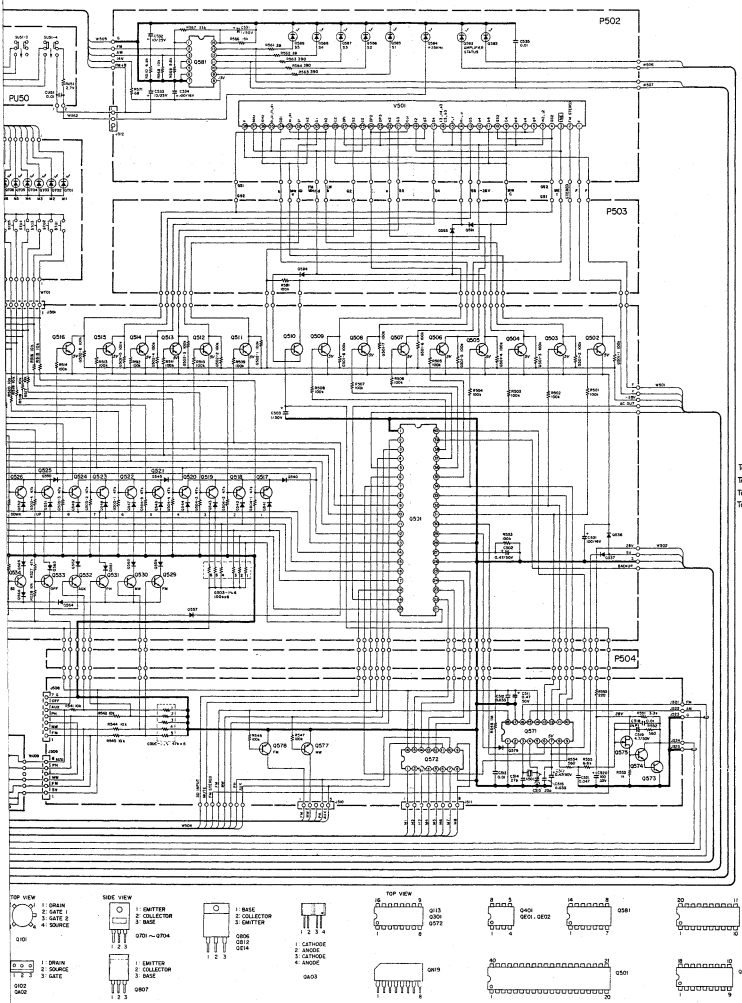


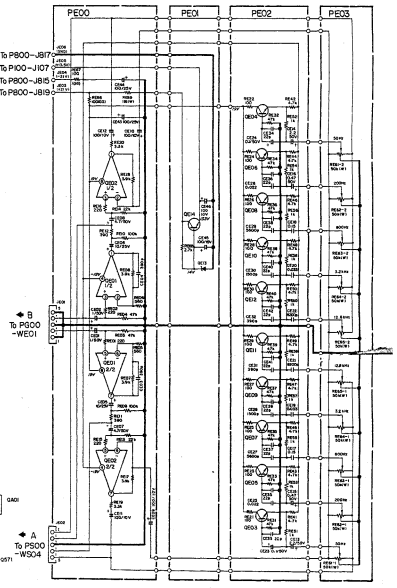
Note on safety: The parts marked with ⚠ are important parts on the safety. Please use the parts having the designated parts number without fail.



Components and wiring are subject to ch

Model SR8100DC(U)





Components and wiring are subject to change for modification without notice.